DOCUMENT RESUME

ED 387 629	CE 070 003
TITLE	EBCE: The Far West Model. Experience-Based Career Education.
INSTITUTION	Far West Lab. for Educational Research and Development, San Francisco, Calif.
SPONS AGENCY	National Inst. of Education (DHEW), Washington, D.C.
PUB DATE	[76]
NOTE	1,048p.; For the program overview only, see ED 138 827.
PUB TYPE	Guides - Classroom Use - Teaching Guides (For Teacher) (052)
EDRS PRICE	MF07/PC42 Plus Postage.
DESCRIPTORS	Adoption (Ideas); Career Development; *Career Education; Community Involvement; Comprehensive Programs; Curriculum Development; *Experiential Learning; Guides; Individualized Instruction; Models; Nontraditional Education; Orientation; Program Administration; Program Descriptions; Program Development; Resource Materials; *School Community Programs; Secondary Education; Skill Development; *Student Centered Curriculum; Student Development; Student Experience; Student Recruitment
IDENTIFIERS	*Experience Based Career Education

ABSTRACT

This package of handbooks on the Far West Laboratory version of Experience-Based Career Education provides information on the distinctive features of the Far West model. Part 1 on management has four handbooks: program overview; administration (attendance, budget, insurance and liability, schedules, staff, troubleshooting and problem solving); external relations (key constituencies, assessing local external relations needs, principles of external relations, external relations strategies); and student recruitment and selection (planning and methods). Part 2 on resources consists of handbooks on the following topics: resource development (determining resource needs, identifying potential resource sites, recruitment, sample resource guides, resource support, resource information system); a guide for resource persons; and package development (package career/subject areas, package development, package use, formative evaluation and revision). (A package is not curriculum, but rather a structure within which individualized curriculum can be planned and carried out in the form of projects.) Part 3 has three handbooks: guidance and instruction: orientation (planning the orientation, suggested activities, orientation workshops); learning coordination (role of the learning coordinator, entry assessment, program planning, advisory groups and project seminars, progress monitoring, credit assignment); and supplementary curriculum (what it is, how to set it up, how to coordinate it). Part 4 contains five project planning packages on commerce, communications and media, life science, physical science, and social science. Each has these components: project ideas, careers to explore, how to plan and complete a project, project seminars, using the package goals, package goals, goal checklist, course equivalencies, sample projects, and resources. Each part contains a bibliography. (YLB)

ED 387 629

The Far West Model

EBCE

Experience-Based Career Education

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THE FAR WEST MODEL

EBCE

Experience Based Career Education

FAR WEST LABORATORY ARCHIVES
1855 FOLSOM ST., SAN FRANCISCO, 94103

MANAGEMENT

1. Program Overview
2. Administration
3. External Relations
4. Student Recruitment and Selection

FAR WEST LABORATORY ARCHIVES
1855 FOLSOM ST., SAN FRANCISCO, 94103

EXPERIENCE-BASED CAREER EDUCATION

CE

1. Program Overview

Prepared by

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Second Edition • October 1975

INTRODUCTION

Experience-Based Career Education (EBCE) is an alternative program of comprehensive secondary education using the entire community as a school. Focusing on direct experience at a variety of employer sites in planned learning activities that blend growth in academic subjects, career awareness, and basic and social skills, EBCE provides students with the knowledge and skills they need to function in the adult world.

The Far West Laboratory version of EBCE was developed and tested at Far West School in Oakland over a three-year period. It has demonstrated effectiveness in achieving student growth in basic, career and life skills, in preparing young people to enter college, seek employment or further training, and in mobilizing and utilizing community resources. The program is now ready for adoption by school districts throughout the country choosing to serve as field-test sites.

EBCE goals and underlying assumptions, staff and student roles, and program procedures and instruments are explained in detail in a complete set of EBCE implementation handbooks, which will be made available to adopters.

The purpose of this overview is to acquaint potential adopters with the nature of the Far West model—its distinctive features, key roles, and learning procedures, and its adaptability to local needs.

Key Features of the Far West Model

1 EBCE enlists competent adults from all sectors of the community as colleagues in the educational process. They share their daily activities, skills and knowledge, and often increase learning incentive by serving as adult models with whom students can identify.

2 It redefines the role of school staff, who become primarily learning coordinators and facilitators rather than teachers in the traditional sense.

3 The student plays a central role in planning and carrying out his own learning, mainly through individual projects which are carefully designed to blend growth in academic, interpersonal, career, and basic skills.

4 Learning activities occur primarily at resource sites in the community, supported and supplemented by staff and instructional materials at an EBCE center.

5 The instructional program focuses on core "process skills" essential for independent and lifelong learning: inquiry, problem-solving, decision-making; and basic skills in oral and written communication, reading, and mathematics.

6 While "booklearning" is essential to the EBCE process of "learning by doing", traditional subject matter is not approached as a syllabus of prescribed and sequenced content. Instead, a given discipline is a *context* in which students can frame questions they deem important, and seek answers by applying academic skills in practical situations.

7 Curricular aids, called Project Planning Packages, provide students and staff with a convenient framework for designing projects that integrate academic and career learning. Each package unites a study area (such as social science) and careers associated with it under a single heading. It includes goals, relevant concepts, issues and topics, sample projects, a list of available resources, and suggested readings.

8 While the student is given freedom to pursue self-chosen learning goals that have personal relevance, he is held strictly accountable for his educational progress through carefully specified program procedures. Credit is awarded only for completed work and demonstrated progress. It is then converted into local high school equivalencies, resulting in a standard diploma and transcript.

9 The program is designed as an alternative for all students—regardless of academic backgrounds or future plans—so long as they are willing and able to profit from the EBCE style of individualized, experience-based learning.

10 In focusing on career preparation, the program defines "career" as "one's progress through life", not as a particular job, and views preparation as acquiring the skills, knowledge, and personal versatility one needs in order to choose, pursue, and find satisfaction in a life role.

What Students Learn

The broad goal of the Far West Laboratory's EBCE program is to produce graduates who are: "turned on" to learning, viewing every situation and human contact as an educational opportunity

- planful: not only about their long-range futures, but about how they intend to accomplish more immediate goals and tasks
- self-reliant: able to set their own goals; plan activities; manage their time and other resources; work independently; recognize when they need help and how to seek it; evaluate their own behavior and learn from it; and accept the consequences of their own decisions and actions
- capable of interacting with adults as equals: know what is expected of them as adults; be able to communicate on an adult level, to make and keep realistic commitments, and have reasonable expectations of others
- capable of making realistic and satisfying career choices: more informed about career options and requirements and more aware of their own values, needs, goals, strengths, and limitations
- independent learners: able to identify what is worth learning; to identify and use effective sources and methods of acquiring information; and to analyze, evaluate, and incorporate new information into their own knowledge and experience base

To develop these "survival skills," all students are expected to progress in certain core areas:

Career Development

Career Awareness. Acquiring a broad understanding of the world of work—how people perform tasks, deal with one another, solve problems, and derive satisfaction in their daily lives—and understanding the particular nature and requirements of specific careers.

Self-Development. Learning about one's own interests, abilities, values, and goals, and using this knowledge to weigh options and make informed decisions about post high school plans.

Basic Skills

Developing reading, writing, oral communications, and computational skills essential for acquiring and communicating information in daily life.

Life Skills

Interpersonal. Learning to relate to others on an adult level; recognizing the needs and expectations of others; handling interpersonal conflicts; and contributing productively to group endeavors.

Inquiry. Learning to interpret and critically analyze information and its sources, draw generalizations, develop and test hypotheses, and evaluate data and ideas.

Problem-Solving. Learning to analyze situations, define problems, identify and use appropriate sources of information, evaluate alternatives, and employ effective solutions.

Decision-Making. Learning to recognize decisions that need to be made, to identify options and probable outcomes, to examine personal values and goals affecting decisions, to make informed choices, and accept responsibility for decisions made.

10

Who Makes It Work?

In the Community

The EBCE learning process—an interaction between the students, the Learning Coordinator, and the resource volunteer—depends first of all on the many people who offer their time, ingenuity, work facilities, and practical knowledge to turn the entire community into a school.

Resource Persons (RPs) are adults from all walks of life who volunteer to share their seasoned knowledge and special skills with interested students in a one-to-one relationship. Whether an arc welder or lawyer, printer or biologist, the RP's primary role is to help students become adults, to learn how to think for themselves, make responsible decisions, relate maturely to others, and carry out their own learning projects.

The relationship is voluntary on both sides, and is defined by a set of mutually understood expectations and consequences. Its scope, objectives, and duration are negotiable—depending on the RP's availability and the student's educational needs and interests.

By providing direct experience in a variety of social and economic settings, RPs help students:

- acquire firsthand information about what people actually do in their daily work, how they feel about what they do, and what kinds of knowledge and skills are needed to enter and succeed in particular careers;
- learn more about who they, the students, are and what they want to become by testing their values, interests, and abilities through actual experience;
- improve reading, writing, and computational skills by *using* them to solve real problems in everyday life situations, and by challenging them to employ these skills on an adult level;
- integrate learning in ways not possible in the traditional classroom by seeing how career skills, academic concepts, and social issues converge in the need to solve practical problems;
- develop some technical skills through hands-on experiences in real or simulated work tasks.

While the core of the EBCE learning experience is this one-to-one relationship between a student and an adult interested in his education, two other kinds of resources are used in the program:

Resource Organizations (ROs) range in size from fewer than ten to more than several hundred employees, and open most or all of their operations to students. Activities at these sites typically include pre-planned group briefings, tours, and observations and discussions with individual employees. Resource Organizations give students broad exposure to a total organization: the nature of the business; its relationship to the community; the kinds of jobs performed there; how particular careers interlock; the working conditions and environment; and educational prerequisites for job entry.

Community Resources (CRs) are institutions or organizations open to the public, such as museums, libraries, aquariums, parks, courts, and city council meetings. Students use them when working on projects and to supplement information available from other resources. At these Community Resource sites, and at Resource Organizations, students may identify RPs who are willing to work with them on individual projects.

A **Policy Advisory Board** whose members are representative of participating community interests—employers, parents, school administrators, union officials—provides recommendations on program policy matters and serves as a mechanism in eliciting and maintaining community support.

Resource Development. Individuals and organizations are recruited to form a balanced pool of resources that can accommodate student interests and high school graduation requirements, and which provide a representative mix of career fields.

Resource sites are analyzed for their learning potential in career awareness, academic subjects and issues, and the application of basic skills. A range of on-site learning activities, from which students can choose in designing their projects, are mutually agreed upon by the Resource Person and EBCE staff, and conveyed to students in the form of Resource Guides.

Community liaison and support is maintained through regular contacts from EBCE staff, newsletters, and open houses. A field manual, called *A Guide for Resource Persons and Community Organizations*, is used to orient resources and explain their role and function.

To aid EBCE adopters, the *Resource Development Handbook* explains how to assess local resource needs, recruit and orient volunteers, analyze their work sites, and prepare Resource Guides for student use.

Staff Roles

While students will spend a major portion of their time at learning sites in the community, a school center serves as a home base where they plan projects, schedule appointments with resources, and return to digest and share their experiences in the community. Located in a school or in a separate facility, the EBCE center is where students use supplementary resources such as tutorials, workshops, and programmed instructional materials, coordinated by a **Skills Specialist**. Here students also come in contact with the **Program Director,** who serves as administrative coordinator and staff supervisor, a **Records Clerk,** and the **Resource Analyst,** who is responsible for recruiting, analyzing, and maintaining the pool of resources. The key staff role, however, is that of the **Learning Coordinator** (LC).

Like all adults involved in EBCE, the LC plays a multi-faceted role as helper, facilitator, and resource. By promoting inquiry and self-initiative, and by providing guidance and assistance as it's needed, each LC works with 20 to 30 students to help them:

- formulate long-term goals consistent with their own interests and educational needs, and decide what steps are necessary to achieve them
- determine what's worth learning, focus areas of inquiry; identify resources, and develop project plans
- refine their interests, clarify values, and continually assess needs, based on cumulative experience
- integrate what they know about themselves with information about career and educational opportunities
- monitor their own learning progress: articulate problems, devise appropriate solutions, and modify strategies to incorporate new insights and emerging interests.

The LC coordinates the student's total learning program and monitors on-site learning experiences through counseling sessions and regular contact with resources in the community. LCs are teachers in one important sense—working with students individually and in small group sessions, they can teach inquiry, problem-solving, planning, and decision-making skills necessary for independent learning.

LCs also provide students with the kind of feedback that can help them make sense out of what they are doing and learning in the community. This process of consolidating and interpreting their diverse experiences, of reinforcing and further stimulating learning, pervades all staff's daily interactions with students.

Role of the Student

Within the framework of EBCE goals and clearly specified accountability procedures, the student acts as planner, decision-maker, and self-evaluator. He is allowed to pursue his particular needs and interests, at his own pace, and according to learning methods best suited to his purpose and capabilities.

Projects. Students plan and carry out their learning through individual projects, using goals and evaluation criteria they help specify. Designed to blend growth in academic subjects, career development, and basic and life skills, each project:

- is organized around a topic or issue relevant to a career or discipline;
- is focused in terms of significant questions that require for their answer planned learning experiences at resource sites and the use of other information sources such as related readings;
- includes activities that require the student to apply communications, interpersonal, and/or computational skills in practical, career-related situations; and
- results in demonstrable growth toward stated goals, and in tangible products for which credit is awarded.

Organizing the Curriculum

Because EBCE departs from the conventional classroom approach to content and instruction, the Far West program has developed curriculum guides, called **project planning packages,** tailored to the unique aims of the model.

A package is not curriculum, but rather a structure within which individualized curriculum can be planned and carried out in the form of projects. Each package unites under a single heading a broad area of study and its related professional and technical careers, and enables a student to focus his learning on an academic subject area, a significant issue, or a career field, while simultaneously learning about all three.

Prototype packages have been developed in the following areas: Social Science, Commerce, Physical Science, Communications and Media, and Life Science. Easily adaptable to local needs, each package contains the following essential parts:

- ☆ **Package goals** define the package scope and range, set minimum requirements, and identify significant underlying concepts and process skills of the career/discipline area.
- ☆ **Sample projects** demonstrate how students can pursue their own interests while meeting minimum requirements for credit, and learn those skills, concepts, and principles considered basic to the package career/discipline area. They also serve as exemplary samples of completed program planning forms (the Project Sketch and the Student Project Plan), while offering project suggestions for students to pursue.
- ☆ The **annotated list of resources** describes resources available for learning activities relevant to the study area.

In addition,

- ☆ A statement about **required group discussions** explains their nature and purpose. Students working on projects within a career/discipline area meet regularly to broaden their exposure to the field by discussing what each of them is doing and learning.
- ☆ A step-by-step description of **how to plan and complete a project** provides guidance on how to plan projects and a reminder of the tasks involved.

Other sections not as critical to the package concept, but time-savers for students and staff, include an introduction; a bibliography; project ideas; careers to explore; and a list of courses for which students could seek subject matter equivalency credit, depending on the content and focus of the project they design. Within this flexible structure, students can plan more ambitious projects to earn more credit, or can plan two or more smaller projects to meet the minimum requirements.

A student might develop a project in the Social Science Package because he or she needs American Government credit, or is interested in some political issue like rent control, or wants to be a probation officer or teacher.

Using the package and working with staff, the student selects the resources to visit in getting a fix on his project topic. Students are allowed to explore several possible topics and resource sites if necessary before clarifying and narrowing their theme for a full-scale project plan. The student interested in rent control, for example, might visit Resource Persons at the housing authority, the legal aid society, and a city councilman's office, only to become involved in a more interesting topic, such as affirmative action employment programs and how they are working.

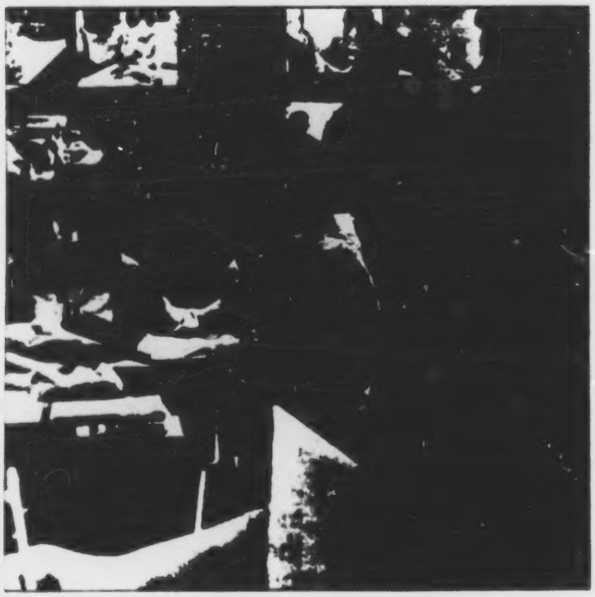
Before long, however, the student must firm up his project plan. (While students may explore as much as they want, they earn credit only for completed projects or other work such as tutorials.) With the assistance of his Learning Coordinator and chosen resources, the student identifies on a project planning form:

- ☆ a focus or theme for the project.
- ☆ questions for which he is seeking answers;
- ☆ Resource Persons and Organizations he will be working with;
- ☆ related reading;
- ☆ an estimate of time required in visiting resources, doing related research, and developing at least one product; and

- ☆ project goals and indicators—what he wants to learn about or learn how to do through the project, and how he will know and demonstrate to the staff that he has achieved his goals. In addition to thus spelling out how his work will be evaluated, he designates who the evaluators will be and deadlines by which he plans to complete his goals.

He also negotiates with his Learning Coordinator the amount and kind of credit he will earn if the project is satisfactorily completed. The package goals provide a standard for use in negotiating credit. If a student's project meets the minimum package goals, he will receive a specific amount of credit.

The package provides the structure and the student's project provides the mechanism for integrating learning of process skills with subject matter content. For example, problem-solving skills are developed by applying them to specific issues or problems. These are examples of questions addressed by Far West students in some of their projects:



- ☆ What causes inflation and what are some possible solutions?
- ☆ What is the impact of revenue sharing on the city government's ability to provide necessary services to its citizens?
- ☆ Who runs the schools, how are decisions made, and how are the schools meeting the needs of the city's minority groups?

In asking these questions—in trying to define the problems that lie behind them, in seeking sources of information (interviewing people, reading newspapers, attending meetings of community groups), and in evaluating and discussing their findings with Resource Persons, fellow students, and staff, students are developing problem-solving skills, while learning a great deal about government and politics, and at the same time broadening their awareness of the careers involved. The package design emphasizes to students that growth in life, basic, and career skills is a natural part of every learning project, whatever its particular content.

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Procedures for using these packages, and for developing additional ones, are described in the handbook, *Package Development*.

The specific methods LCs use to facilitate the learning process described above—how to use procedural forms, guide effective planning, lead group discussions, monitor and assess student progress—are explained in the handbook called *Learning Coordination*.

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Using Resources

To satisfy diverse needs and interests, students can become involved with resources at levels varying in purpose, duration, and intensity.

The most basic level, the **Orientation**, allows the student to become acquainted with the Resource Person and his organization and to discover what can be learned there. For example:

> Michael had decided that he wanted to pursue an interest in journalism and made an appointment with Mr. Jim Morrison, director of public relations for a large East Bay industrial firm. After spending their first session telling Michael how he happened to get into this line of work, Mr. Morrison described his responsibilities: handling the company's external publicity by sending out feature articles and press releases, and managing internal communications to keep employees informed of company developments. When Michael said he was not sure such a job would allow him to do the kind of writing he was interested in, Mr. Morrison told him of his own early experiences as a free-lance writer and explained the uncertainties involved in such a profession. After a morning spent touring the company and going over some of the publications in detail, Michael decided that he would be able to get valuable writing experience by working with Mr. Morrison and arranged with his Learning Coordinator to extend his participation and begin planning a project.

To ensure that students' Orientation experiences are purposeful—at least in terms of probing an area of interest they might decide to pursue in a project—they are required to develop a brief project sketch to guide and document their experience. They are allowed and in fact encouraged to have Orientations at more than one site. Ultimately, however, they must focus on some specific project requiring a long-term involvement with an RP or RO.

The next level of involvement is the **Exploration,** which allows students to begin to explore a particular career or study area:

> Arthur had contacted Thomas Ross, foreman of a small print shop, for an Orientation. After going through the building and spending a few mornings talking to some of the workers, he decided he would like some practical experience. He and Mr. Ross determined that he would come to the shop three mornings a week for a month. He would learn the various printing processes done in the shop by working alongside the operators of the different machines and by following particular jobs through all stages leading to completion. After he discovered that he was most interested in the silk-screening process, Arthur and Mr. Ross decided that a good project would be to design and print some safety posters. By the end of the Exploration, Arthur's project was completed (the posters were, in fact, good enough for Mr. Ross to have them posted throughout the plant) and his interests in printing had begun to gravitate toward the role the union played in a printer's daily life. Mr. Ross arranged for him to meet the printers' representative on the Central Labor Council and talk about pursuing the subject further.

At the **Investigation** level, students develop more specialized skills and knowledge:

> Susan had completed an Exploration with Mrs. Greene, counsellor at the Center for Continuing Education for Women, in which she learned how the Center's program of career, academic, and personal counselling worked. She had done some clerical work in the referral program and in the women's library. In deciding to begin an Investigation-level activity, Susan agreed with Mrs. Greene that she would come to the University three mornings a week during the next quarter and that her primary effort would be to set up a workshop for teenage women on career opportunities. Mrs. Greene also arranged with Susan's Learning Coordinator for her to audit a course on women's rights in the University's Sociology Department. Toward the end of the quarter, as Susan began correlating her work in the course and her practical experience in setting up the workshop, she decided that one of her products would be a lengthy report on the problems involved in counselling young women about careers.

At the Exploration and Investigation levels, the student must spell out his objectives and products and complete an individual project plan, more detailed and comprehensive than the project sketch.

The scope and duration of projects are flexible to accommodate individual interests and learning styles. Terms like Orientation, Exploration, and Investigation are meant to indicate the possibilities inherent in students' relationships with Resource Persons, not to force them into prefabricated molds.

Within the structure of EBCE goals and specified procedures, RPs and students are free to make the method suit the need. For example, one RP—a public relations manager in a large corporation—chose to combine the interests of several students into a group project, which he explains as follows:

"After a 'getting acquainted' session with my group of four students, I explained the possibilities in an advertising program development project. I tried to make it clear that it would be based on their own work, and that when they completed it they would have something real to show.

"Based on their main personal interests, we decided what function each of them would represent in the advertising agency we had formed—copywriting, art department, market research, management, etc. We discussed the first requisite of getting started which is, of course, a client. The students chose Coney Island, a restaurant on the ground floor of the Far West School building.

"We then planned activities with chapter headings: **market study** (location, market size, volume, price, atmosphere, service, competition, food quality, suggestions for improvement, etc.); **media** (examination of available media for advertising, with rationales for selecting one over another); **message** (the ads themselves, copy preparation, layout, type face, etc.); **campaign** (the release dates for the ad messages and the reasons involved in the choice); **merchandising and sales promotion** (what 'deals' and incentives could be established to get customers); **budget** (based on the percentage of volume and the need for market coverage); and **evaluation and follow-up** (interviewing to evaluate reception of the campaign, analysis of the sales results, etc.).

"Discussion and interest have grown since we began. I think I got 'turned on' when, early in our discussions, one of the students interrupted me and said, 'Wait a minute, we'll do it.' I realized that it had become *their* project.

"By the end of the semester, the students had put together a portfolio which they presented to the owner of Coney Island. It included a demographic analysis of the potential clientele, a run-down on competitors, recommendations for bettering the atmosphere and service of the restaurant, and sample flyers. The owner was so impressed that he actually bought an advertising campaign from them, implementing some of their recommendations and distributing one of the flyers."

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One Student's Experience

The key features of the total EBCE process are illustrated by the experience of one student during his first year in the program.

Lee was far from a typical student, yet he believed (along with many of his friends) that school was "boring" and had complied with his assignments in the first two years of high school "only for the grade." The only course that had really interested him during his sophomore year had been an English class in which he was encouraged to write short stories. Because of the "pressure to be right," he spoke in class only when forced to. He was the kind of student inevitably labeled with the phrase, "doesn't work to capacity."

Lee entered the EBCE program at the beginning of his junior year. During initial diagnosis, he and his Learning Coordinator agreed on a tentative profile as a basis for planning: his writing ability was very good; his math skills needed improvement; he was most comfortable "taking his time" doing things and a little shy about meeting people; he needed graduation credits in Science, American Government, and English; and he had no particular career interest.

During the first three weeks, students are initiated into the EBCE learning process. Through a series of planned workshops and field activities, they find out what the program's learning resources are and how to use them, and learn that they are expected to manage their own time and exercise initiative and responsibility. Like some of the others, Lee was reticent about going out. He chose for his first resource orientation the Southern Pacific Railroad, mainly because he'd always liked trains.

During the four half-days of activities at Southern Pacific, Lee and four other students spent time in the claims office, the engineering department, the main office, and the crew dispatching office. They met a yardmaster, a tower clerk, a perpetual inventory car location clerk, a rate clerk, and a billing clerk, observing them at work, and asking them questions about their jobs. They were shown how computers are used to keep track of every car and how to program a card. Out in the yard, they talked to brakemen, switchmen, and engineers, went through control towers and interlocking towers, and rode on a train.

In the offices, the routine and monotony of so many "menial jobs" boggled Lee's mind. When he asked one of the clerks why he did it, the man answered frankly: "I need the money." But out in the yard things were more relaxed. One carry-all driver who transports crews told Lee the railroad was part of his family: he had been with Southern Pacific for 30 years, and both his brothers were now employees of the railroad.

In one of the regular discussion group sessions back at the center, Lee commented that at first he thought it was ridiculous that the several unions at Southern Pacific could fracture the tasks into absurdly small pieces. (For example, after a carpenter had drilled through a piece of wood, he had to call an iron worker to drill through the metal behind it.) But a union man had explained the necessity of protecting the worker's rights and cited examples of how bad the working man's life was before labor had organized. He agreed that so many unions could be cumbersome, but felt the benefits far outweighed the inconvenience. Lee was intrigued by the problem and his Learning Coordinator recommended a good book on the history of unions.

For his next orientation, Lee chose Mason Business Forms. After completing a project sketch in which he specified questions he wanted to explore—especially what kinds of communication skills are involved in designing business forms—Lee got acquainted with his Resource Person, a salesman named Don Stone. Don showed Lee how forms were designed to meet the particular needs of clients in various kinds of business. It turned out to be more creative than Lee had supposed. You needed to be able to visualize problems, use drawing techniques, and understand spacing and layout. And it was complex: with the forms used on computer equipment, one one-hundredth of an inch becomes a critical factor. Don let Lee try his hand at improving the design of a form currently in use.

Lee discovered that Don had several long-term relationships with clients and seemed genuinely concerned with their needs. Watching him make presentations. Lee was impressed with his ability to do on-the-spot designing, probing the client for enough details to make the form more efficient than the client originally had called for, but couldn't see himself doing it for a living because it was too technical.

Lee met with his LC to discuss his EBCE experiences so far. He had gained valuable insights at Southern Pacific and Mason Business Forms, although neither place had kindled a strong enough interest to lead to a more detailed project. His LC noted that while Lee was getting credit for his math tutorial and the beginning Spanish class he had enrolled in at a local junior college, it was time to begin more intensive learning experiences, aiming at growth in core program areas. They agreed he could fulfill needed science credits by pursuing a sample project from the Life Science Package at Western Laboratory, which performs clinical diagnostic work for hospitals. The broad goals of the package are to learn scientific methods and concepts as they are applied in a variety of practical situations.

At Western Laboratory, Lee worked with John Buckner (the director) and three technicians over a period of several weeks. As a prerequisite to his learning experiences there, he was asked to read several chapters of a college text called *Clinical Diagnosis and Laboratory Methods*, which he found "advanced but challenging." He was instructed in techniques used in electrophoresis and hematology. He learned how to run chemical tests for pregnancy, took a culture from his own throat, incubated it, performed a complete analysis. He also analyzed a sample of his own blood, from which he concluded that his diet was too high in carbohydrates. Some of the skills Lee worked on in his math tutorial were based on his need to figure ratios and percentages in performing these tests.

Lee was interested by what he learned about the blood system, and in a workshop session explained to other students how leukocytes (white cells) attack bacteria during infection, and how under the impact of certain diseases like leukemia they go berserk and devour everything in sight.

With Mr. Buckner he specified the goals of the project. He would do a report on the causes, treatment, and social implications of sickle-cell anemia based on readings in medical journals and tests, graphs, and printouts done from work with Western Laboratory's machines.

It took Lee seven weeks to complete the project. Originally he had considered using other Resource Persons in the Life Science Package, such as Dr. Mitchell, who does research in immunology, and Bob Gilmore, a machinist in a physiology laboratory, who builds the kind of equipment used at Western Laboratory. But he decided that he was not really interested enough in science to go any further.

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One Student's Experience (continued)

Lee began the spring semester with a lengthy planning session with his Learning Coordinator. He realized that his math skills had improved during the fall and decided to continue with the tutorial. He also enrolled for the second semester of Spanish at the junior college. He felt anxious to get to work on a project that would involve his continuing interest in communications. Putting together a number of areas he was interested in—descriptive writing, broadcasting, films, and television—he decided to develop a project in the Communications and Media Package.

Mapping out a tentative plan with his LC, Lee decided to begin by working on a newspaper. He arranged an interview with the managing editor of the Berkeley *News*. After explaining the paper's philosophy for covering national and local news, the editor turned Lee over to a reporter named Tom Kenley. Kenley allowed Lee to follow the development of a news story from editorial conference, to field interviews, to the actual writing. He explained proofing symbols and techniques for writing leads and cutting copy. Introducing Lee to reporters in other departments, Kenley explained the differences in style between news copy, feature articles, and sports, editorial, and society-page material. He let Lee copy-edit a short article and then went over it with him. In the course of their conversations, Lee remarked that he had worked as a volunteer cleaning up the beaches after an oil spill in San Francisco Bay and had been upset later on to read newspaper accounts that he felt falsely minimized the extent of the damage and the responsibility of the oil company. Kenley talked at length about biased coverage, the difficult problem of separating fact from opinion, and the frustrations reporters experienced when their copy was altered to fit editorial policy.

It was while talking to Kenley about the upcoming municipal elections and the controversy surrounding a ballot referendum regarding fluoridation that Lee got the idea of "covering" the election as a reporter for the *News*. Lee went back to his LC, who pointed out that it sounded like a good entry into the politics section of the Social Science Package. He could pursue his career interest in journalism by focusing on the fluoridation issue, while also acquiring a basic firsthand understanding of city government, local politics, and the careers associated with them. In the process, he could earn credits in both American Government and Journalism.

Having secured Tom Kenley's cooperation, Lee made an appointment with George Elia, staff assistant to the city manager, who became the other Resource Person for this project. While getting acquainted, they toured the offices at City Hall, where Mr. Elia had worked for twelve years. His current responsibility was drafting measures which the city manager proposed to the city council. It was Mr. Elia, in fact, who had originally drafted the fluoridation measure which was now the subject of heated controversy.

Based on suggestions made by Mr. Elia and using some of the interviewing techniques he had learned from Tom Kenley, Lee began to interview various of the personalities involved in the fluoridation measure, including the campaign manager of the forces trying to overturn the measure, public health officials, environmentalists, and the city attorney who had handled the suit when antifluoridation forces attempted to seek an injunction keeping fluoride from being added to the city's drinking water.

Working with both Resource Persons and his LC, Lee was soon able to formulate the major outcomes of his project in a detailed project plan.

1. I will describe in outline form the following three occupations: staff assistant to the city manager, political consultant, and city attorney. Each outline will include the following information: roles and functions of the job; working conditions; and outlook, qualifications and features of the job as they relate to my own career interests. These outlines will be reviewed by Mr. Elia for correctness.

2. I will write two 500-word newspaper articles acceptable to Mr. Kenley. One of them will compare the values and other factors motivating the pro- and anti-fluoridation factions. In the other, I will discuss the public health implications of fluoridation. These articles will be based on interviews I will conduct with members of both campaigns as well as with public health officials. I will also make a bibliography of the literature of fluoridation and review the major works.

Lee was fascinated by the personalities of the individuals involved in the campaign and compiled several hours of taped interviews with them which impressed Tom Kenley. From the onset, however, he had trouble with the second article. The literature on fluoridation was vast, and while the weight of "reputable" medical opinion was in favor of the measure, Lee had interviewed doctors who vehemently argued against it, claiming that although fluoride undeniably prevented tooth decay, it also did long-term damage to bone, cartilage and other tissue growth. While Lee felt he had learned a good deal about the matter, he decided to revise his project to eliminate the second article.

Lee was deeply involved in the campaign up to election day. From his experiences, interviews, discussions, and reading, he drew the following conclusions:

1. The campaign to repeal the fluoridation measure lost primarily because the medical establishment opposed it.
2. Nonetheless, far more voters had supported the referendum than had been anticipated; opponents of fluoridation were more committed and better organized than its proponents.
3. The city's white middle- and upper-class had a much larger voter turnout than any of the ethnic groups and had therefore effectively determined the outcome of the election.

Lee had particularly enjoyed constructing a voter precinct map; it enabled him to visualize how socio-economic and ethnic groups voted by neighborhood. Although his project had been scaled down to just one article, the piece he submitted profiling the leading personalities in the pro- and anti-fluoridation camps impressed Tom Kenley so much that he got it printed on the editorial page of the post-election wrap-up printed by the *News*.

As the Spring semester drew to a close, Lee summed up his experiences: "I'm more aggressive and efficient about getting things done. I'm less shy and much more open to people. I feel I know what's happening out in the world." Having worked in a "print medium," he planned to explore broadcasting during his senior year. He was thinking seriously of going on to college to major in journalism or perhaps telecommunication. He had concluded that although journalists have to meet tight deadlines, there was plenty of "mental elbowroom."

Evaluation

Since its inception, Far West Laboratory's EBCE program has been carefully monitored and evaluated by an internal staff and external review teams from the National Institute of Education and the Educational Testing Service. Evaluation efforts have concentrated not only on measuring EBCE's impact on the development of basic skills but also on determining the extent of change of Far West students' attitudes toward their school, their future, and themselves.

Far West School has had a sizeable number of students, some of whom have participated in the program for all three years of their high school career. The student body has been selected to reflect a cross-section of the local high school population in terms of ethnic background, male/female ratio, socio-economic status, and scholastic achievement.

Year	Number of Students	Sex (%)		Ethnicity (%)					Grade (%)			Grade Point Average (A = 4)
		Male	Female	Asian	Black	Chicano	Native American	White	10	11	12	
1972-73	30	63	37	7	23	23	0	47	6	57	37	2.3
1973-74	61	47	53	2	27	16	2	53	27	26	47	2.2
1974-75	102	40	60	1	48	8	2	42	42	29	29	2.2

Highlights of Evaluation Findings

Student Attitudes The vast majority of Far West students responded positively to interviewers questions about their attitudes and experiences. Ninety percent of them indicated that FWS helped them form their post high school plans for work or college, as opposed to 50 percent of Oakland Public Schools control group students. Far West students also rated their school higher than the control group when asked about its ability to help them assume responsibility, evaluate their own performance, and organize their activities. They felt that during their education at FWS they had been treated like adults, been able to pursue interests they considered genuine and important, and had learned how to get along with others. Over 85 percent of them expressed a strong preference for FWS over the school they had previously attended. A similar number stated they were more motivated to learn at FWS than at schools previously attended. Their enthusiasm was reflected in the fact that of 108 students in the program at the beginning of 1974-75, only four withdrew from school.

Parent Attitudes. Eighty percent of all parents interviewed indicated a preference for Far West over the schools previously attended by their children. They rated FWS highly on its ability to develop positive attitudes toward self in the students and to make them assume responsibility for their own actions. Many parents reported marked student growth in self-confidence, poise, independence, and motivation to learn. Nearly all of those questioned indicated that they would send their children to FWS if again given the choice.

Community Participant Attitudes. A significant majority of the Resource Persons questioned felt positive about their interchange with FWS students. Over two-thirds of them said they thought experiences at the resource sites had been worthwhile and that in working there students had increased their job knowledge and abilities. Most of the RPs indicated that they would continue to serve in the program and urge others to also become involved.

Basic Skills. On standardized tests, FWS students showed solid improvement in reading and computational skills. In a writing sample evaluated by an independent team of local high school English teachers, students showed a significant increase in their knowledge of the mechanics of writing and in the maturity and effectiveness of their written thoughts.

Follow-Up of Graduates. Thirty-four students had graduated from Far West School by January, 1975. Of those responding to evaluators' questionnaires, 73% are now attending school full-time, including the University of California (Berkeley, Santa Cruz, and Davis campuses), California State Universities (Humboldt, Chico, Hayward, and others), private universities and colleges (Fisk, Mills), and community colleges. Many of those in school are also employed part-time; 17% of the respondents are working full-time. Nearly all graduates (95%) feel strongly that FWS provided them opportunity for investigating potential careers and for making realistic future plans. Most (89%) feel their FWS experiences helped them decide what they should do after high school.

Program Materials

The following handbooks, materials, and procedural aids have been developed to guide and assist adopters in planning and implementing an EBCE program based on the Far West model.

General

Far West tape-slide presentation. Explains the EBCE concept and illustrates the learning process.

The Community is the School. A brochure describing the Far West EBCE program.*

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*Easily adaptable for local use

Management

Administration Handbook. Describes staff roles and qualifications, logistical requirements, and administrative procedures.

External Relations Handbook. Provides guidelines for developing and maintaining relationships with local schools, community groups (unions, parents, and significant others), and the establishment of a policy advisory board.

Student Recruitment and Selection. Describes student recruitment and selection procedures.

Resources

Resource Development Handbook. Explains procedures for the recruitment, analysis, development, and maintenance of learning resources in the community (RPs, ROs, and CRs).

Guide for Resource Persons and Community Organizations. Pamphlet designed to orient resources in the community to their role in the Far West EBCE program. *

Package Development Handbook. Describes procedures for developing, using, and updating packages as tools to facilitate student project planning in a variety of subject or career areas.

*Easily adaptable for local use

Guidance and Instruction

Student Orientation Handbook. Describes processes for orienting new students entering the EBCE program.

Learning Coordination Handbook. Describes processes for entry assessment of student needs and interests, student program planning, progress monitoring (including on-going assessment of needs and interests), credit assignment, record-keeping, and guidance (the role of the learning coordinator in facilitating student learning programs through individual and group sessions).

Supplementary Curriculum Handbook. Describes staff roles and processes for arranging, using, and coordinating supplementary learning resources and activities, including individual and small-group tutoring, workshops, external courses, and instructional materials.

Project Planning Packages. Commerce, Communication and Media, Life Science, Physical Science, Social Science.

Program Forms. Single copies of the forms and instruments used as aids in planning, scheduling, monitoring, and evaluating student learning activities.

The Far West Laboratory for Educational Research and Development is a public nonprofit organization located in the San Francisco Bay Area and is supported in part by the Department of Health, Education, and Welfare. The Far West EBCE project is part of a national program funded by the National Institute of Education. The opinions expressed in this publication do not necessarily reflect the position or policy of The National Institute of Education.

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2. Administration

Administration

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January 1976

Experience-Based Career Education Program
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This handbook was created by the FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT under contract to the National Institute of Education (NIE). The opinions expressed here do not necessarily reflect the opinion of NIE nor endorsement by any other government agency.

Far West Laboratory was established through a Joint Powers Agreement in February, 1966. Signatories, as of January, 1976, include the Regents of the University of California; the California State Board of Education; the Trustees of the California University and State Colleges; the Board of Education of the San Francisco Unified School District; the Regents of the University of Nevada; the Nevada State Board of Education; the Board of Regents of the University of Utah; and the Utah State Board of Education.

The Laboratory's mission is to carry out surveys, research, development, and demonstrations in education and to disseminate information derived from such activities; accompanying programs of teacher, administrator, and parent education are also a focus of the Laboratory's work. Programs conducted by the Laboratory are intended to offer a clear and firm prospect of being implemented by schools and other educational agencies. In the course of these efforts, the aim is to assure that the evaluated outcomes of research and development are presented effectively to schools and other educational agencies.

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Table of Contents

Page

INTRODUCTION 1

ACADEMIC CREDIBILITY 3

ADMINISTRATIVE STYLE AND RESPONSIBILITIES 5

ATTENDANCE AND REPORTING 7

BUDGET PLANNING AND ADMINISTRATION 9

COMMUNICATIONS 13

EXTRACURRICULAR ACTIVITIES AND SOCIAL EVENTS 15

GRADUATION 17

INSURANCE AND LIABILITY 19

  Student Coverage 20
  Resource Organization Coverage 20
  Resource Person Coverage 20
  Automobile Liability 21

LEGAL ISSUES 23

SCHEDULES 25

SPACE REQUIREMENTS AND UTILIZATION 29

STAFF SELECTION 31

STUDENT CONDUCT AND DISCIPLINE 33

STUDENT ENTRY AND EXIT 35

TROUBLE-SHOOTING AND PROBLEM SOLVING 37

  Enrollment 38
  Resources 38
  Student Activities 39
  Staff Activities 41

APPENDICES

  1 - Administrative Forms 45
  2 - Staff Roles and Qualifications 49

List of Exhibits

Page

Exhibit 1: Far West High School Staffing Pattern (For 220 Students) 11

Exhibit 2: Sample Master Schedule 26

Exhibit 3: Sample Schedule for a Learning Coordinator 28

Introduction

Planning, operating, and assuring the continuance of an alternative educational program is a challenging task in these years of tight budgets and public demands for quality education. It is likely to be especially demanding when that program uses the entire community as a classroom and gives students a central role in deciding what they will learn and how they will go about it, as does Experience-Based Career Education (EBCE).

While the administrative concerns of assuring that operational plans are well-formulated and followed, that standards of quality are established and applied, that educational goals are understood and consistently pursued, and that expenditures are reasonable and necessary must be shared by all program staff members, the responsibility and authority for EBCE program administration should be centralized on-site in the position of a program director, staff team leader, master teacher, or whatever organizational title is commonly used within your district. (Throughout this and other handbooks, the Program Director title has been used.)

It is recognized that small or growing EBCE programs may well need to combine the responsibilities of a Program Director with those of another staff position. Some may even choose to rotate this set of responsibilities among staff members. Whatever organizational arrangement is chosen, some one staff member should be "in charge" at all times. This is especially important in dealing with Resource Persons and Resource Organizations in the community; but students, parents, district and/or campus administrators, and staff also need to know whom to see when they have a program-related problem requiring decision or action by someone in authority.

While this handbook discusses topics of concern to all EBCE staff members, and should be read by each of them, it is addressed primarily to the on-site Program Director. It focuses on administrative matters not dealt with in other handbooks in these volumes. The topics, arranged alphabetically for easy reference, were suggested by questions frequently asked of Far West

Laboratory (FWL) EBCE staff by administrators of programs adopting or adapting the FWL-EBCE model.*

This handbook is not intended to stand alone. It must be used in conjunction with the following documents, which describe the Far West EBCE model and provide guidelines for implementing and operating the program:

MANAGEMENT

1. Program Overview
3. External Relations
4. Student Recruitment and Selection

RESOURCES

5. Resource Development
6. Guide for Resource Persons
7. Package Development

GUIDANCE AND INSTRUCTION

8. Orientation
9. Learning Coordination
10. Supplementary Curriculum

PROJECT PLANNING PACKAGES

11. Commerce
12. Communications and Media
13. Life Science
14. Physical Science
15. Social Science

---

* The Far West Laboratory's EBCE model was developed and tested at Far West School (FWS) in Oakland, California. Throughout this and other handbooks, the experiences of Far West School staff and students are used to illustrate key points.

Academic Credibility

You should be alert to the legitimate and serious concern of parents, students, and others that EBCE students will receive a quality education and that state and local graduation requirements will be met. From the beginning, you should establish and maintain the program's reputation for awarding academic credit only where credit is due, in kinds and amounts that are credible and legitimate. You should assure that students, parents, and your colleagues in education are informed of the criteria you use in awarding credit for experience-based learning, as well as your criteria for judging the acceptability of student-designed programs and projects. The project planning packages were designed in part to provide EBCE staffs with yardsticks for determining how much and what kind of credit students should earn for experience-based learning projects. (The Package Development handbook explains how these standards were developed.) Credit assignment criteria and procedures are discussed in detail in Learning Coordination.

Of course, you may need to modify the packages to meet local needs and constraints. In any case, you should show and carefully explain the packages, or other locally developed guidelines for awarding credit, to teachers and administrators in your school(s) and seek their critical comments and suggestions for improvement.

Your efforts to explain your program and academic standards to others will be more credible if you are able to speak knowledgeably about the kinds of activities EBCE students are engaged in at the school and in the community, the kinds of projects they are working on, and the kinds of credit they can expect to earn when they complete them. You should also be prepared to handle questions about grades, attendance or participation requirements, and similar matters.

Although EBCE students should be able to earn credits in any subject area through projects or other learning activities, the district or the state may place constraints on the amount or kind of credit you may award students for experience-based projects. For example, the district may say that you cannot award laboratory science credits unless the student is enrolled in a regular laboratory course, or that you may award credits only in those subjects that appear on the district's official listing. The district may also limit the number of credits that can be earned in a particular subject, such as English or career exploration, in a given term. You must determine what policies govern credit assignment in your school and be sure your staff understands how to apply them. Don't covertly criticize your district's system or apologize for it to parents or students. If you believe some of the requirements are inappropriate, work within the system for change or suggest compromise solutions to central office personnel.

Students can sometimes mislead their parents with misinterpretations of the program's purpose, standards, and expectations. Be sure that students and their parents understand EBCE's goals and how the program works. The recruitment and selection process is the first opportunity you have to inform them about EBCE. (See Student Recruitment and Selection.) What is learned there can be reinforced at parent meetings and through parent/staff conversations.

Of course, the best method of assuring the community that the quality of education offered is high is by consistent and equitable application of requirements and academic standards. Because you and your staff may well be called upon by individual parents, educators, or board members to prove that you practice what you preach, you should be very sure that student activities and projects are properly planned, that learning is documented, and that credit awarded is backed up by evidence in the student's files. That evidence should include plans, products, and performance evaluations by staff and resources with whom students worked.

Administrative Style and Responsibilities

As the EBCE Program Director, you will oversee the daily activities of the staff; be responsible for managing funds; meet with parents, business and labor groups, the press, and other members of the community as necessary; serve as a member of the Policy Advisory Board (see External Relations); and exercise responsibility for matters of health, safety, fire prevention, and security.

Further, you must assume other responsibilities unique to the program's purposes, structure, clientele, staff, and community characteristics. Like all school administrators, you will develop a unique style of leadership which will become a noticeable part of your program's image. Far West Laboratory's experience with the prototype Far West School, and with the earliest adoptions of EBCE in other districts, suggests that certain characteristics of administrative style are essential if the program is to succeed. An EBCE Program Director must:

- be seen by staff and students as accessible to them and helpful on matters concerning instruction and learning;
- avoid being used by students to circumvent decisions made by other staff members, taking a fact-finding, problem-solving approach to all issues and questions brought before him*;
- be effective in the use of small-group leadership techniques that draw out and support maximum creative effort from the staff and maintain open communications among its members;
- be willing and able to become directly involved in operational tasks even though they are usually performed by other staff, such as conducting advisory group meetings and project seminars, recruiting and developing resources, and helping students plan and carry out their educational programs; and
- be able to interact comfortably and effectively with community leaders, including those in business and labor, obtaining their involvement and support.

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* Through these volumes we have generally used the masculine pronouns *he*, *him*, and *his* in instances where we obviously mean to refer to both male and female students, staff, or resources in the community. We were unable to find an alternative that was not cumbersome.

Attendance and Reporting

Individualizing student programs and using the community as a classroom pose some problems for keeping track of attendance. However, you can still obtain a high degree of accuracy in attendance reporting if your Learning Coordinators (LCs) do a good job of monitoring students' activities. (See the section on Progress Monitoring in Learning Coordination for more details.)

Students are asked to plan their activities each week on a Weekly Activity Schedule, and to update the schedule daily if activities or appointments with resources are added or changed. The schedules are posted at the beginning of each week outside the LCs' offices so that students can enter new appointments or revised plans as soon as they are made. The LC is responsible for knowing, or being able to find out quickly, the whereabouts of each of his students. The schedule enables the LC to do this and to double-check at the end of the week whether the student's attendance and activities conformed to his plans. (The student also keeps a copy of his weekly schedule. Parents should know that they can ask their child to show them his schedule for the week.) At the end of each week students complete a Student Activity Report listing resources visited, meetings attended, and other program activities, including the time spent in each. The LC should review these to assure that the student put in a full week's work and met his commitments to resources and others. He should also contact a sample of the resources visited by the student to assure that the student in reporting his activities accurately.

At Far West School, LCs maintained daily records of student attendance in the same kind of attendance books used by teachers in the Oakland schools. At the end of each week, the school Secretary used these records to compile attendance reports to send to the district office.

The effect of attendance on program funding and the need for accurate reporting should be explained to students. Likewise the need for staff to know where and how to reach students during school hours should be explained. A student who, because of illness or other legitimate reasons, cannot keep an appointment with a resource is expected to phone his LC and the resource. Any time a student will not be coming to the school and does not have a scheduled appointment, he must call his LC to tell him where he will be and why.

There are many legitimate learning activities that may take the student away from the school site, yet do not involve visiting Resource Persons (RPs), or Resource Organizations (ROs). For example, the student may do research at the public library or elsewhere in the community, conduct a survey related to his project, take photographs and develop them, study plant life in a park, or collect insect specimens for examination and classification. If LCs are familiar with their students' projects, and have been keeping track of their progress, they will know whether a particular student is out in the community on school business. They will also know when to suspect truancy.

When an LC detects attendance problems with a particular student, he should immediately confer with the student to identify the reasons, explain the consequences of continued poor attendance (little or no credit and possible transfer from the program), discuss the possible need for parental involvement, and ask the student to decide what he intends to do to remedy the problem. Should truancy continue, the LC contacts the student's parents, and may request a conference with you (the Program Director), the student, and his parents to determine whether EBCE is serving the student's needs. (See the section on student entry and exit, page 35.)

Budget Planning and Administration

FWL-EBCE is designed to be operated at a cost generally equivalent to average per-student costs at an urban comprehensive high school. Our experience to date suggests this is feasible, but there are additional, start-up costs that occur the first year. Because each local school system is unique, it is impossible to provide detailed budget information that would be truly useful to all adopting districts. States' school finance structures, teachers' salaries, initial program enrollments (from as few as ten to as many as several hundred students), and the costs of school facilities all vary widely. Even so, the information presented here and in other handbooks may help you plan your budget and control expenditures. (It is recognized that in many districts the Program Director will be selected only after an initial budget has been adopted. You should, however, be involved in budget planning in subsequent years.)

Wherever possible, you should seek to have major, if not complete, control of expenditures. To do this, you must develop a working relationship with district business office personnel so you can learn their system, become part of the approval process on all expenditures of EBCE funds, and earn a reputation as a cost-conscious and "tough" budget manager. By these steps you can do much to ensure the continuation of the program.

The single most important variable affecting per-student cost of EBCE is the staff/student ratio. While the prototype FWL-EBCE was under development in Oakland, California, the per-student costs were high; but the student enrollment numbered only 30, 60, and 100 for each of the three successive developmental years. Additionally, there was considerable experimentation with different and sometimes costly staffing patterns. During the second year, the Oakland district's finance office furnished cost and budget information which enabled the Laboratory to make projections based on three different enrollment figures of 100, 250, and 500 students. From this 1974 study, it was hypothesized that a program enrolling 250 students could operate for a year at $100 per student more than the base revenue.* It was also estimated that, at an enrollment of 500 students, EBCE could operate at a cost equivalent to base revenue.

As yet insufficient data are available to demonstrate the validity of the above figures; however, recent experience has been encouraging. Specifically, the Oakland Unified School District in school years of 1975-76 assumed full responsibility for the operation of Far West School, increasing the enrollment to 220 students in the 10th, 11th, and 12th grades. With the exception of start-up expenses and costs associated with being the FWL-EBCE demonstration site, Oakland will be operating Far West High School at approximately its district-wide revenue. The school is staffed with professionals selected entirely from the ranks of credentialed teachers and counselors already employed by the district. The school Secretary is the only former FWL employee now employed by Oakland. The staff is organized as a separate city-wide high school under the general direction of an Associate Superintendent of Schools. Far West High School is organized as shown in Exhibit 1 on the following page.

Your own staffing pattern will, of course, vary depending on student enrollment and available funds. In addition to budgeting for staff costs, you will need to estimate costs for student and staff travel to and from resource sites in the community, for telephones, for printing of project planning packages and forms used by students and staff, and for instructional materials and supplies. You will also need a copy machine so that students can make copies of Project Plans and products for themselves and their resources. (The originals should remain in the staff's files.)

Although personnel costs comprise a major part of the budget, and staff salaries are not controlled by on-site administrators, you can still have some effect on per-student personnel costs:

- Monitor student attendance (ensure that LCs contact parents to verify excused absences, spot-check records, and so forth) so that maximum credit is given for average daily attendance. Such monitoring can help detect and correct attendance problems and thus raise the base revenue per student.

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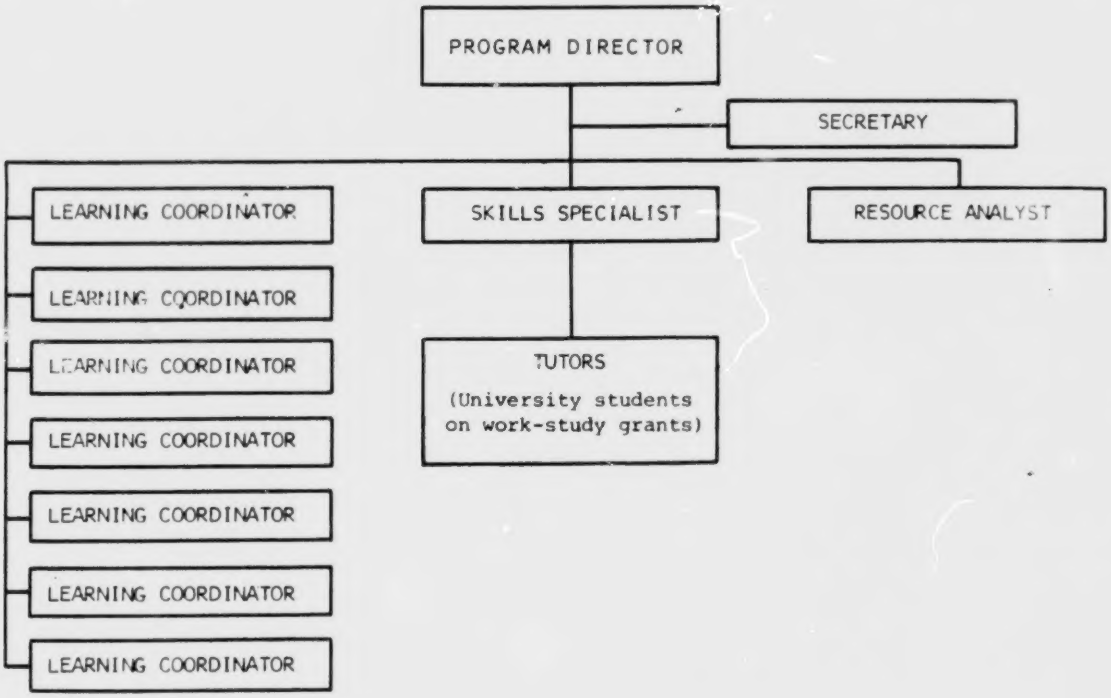
* "Base revenue" is a California term for an annual rate of allowable income per student. It is comprised of basic state aid, equalization aid, local property tax income, and an inflation allowance. Revenue from federal and state projects, excess cost allowances, and miscellaneous incomes are not included.

- Be alert to any slippage in enrollment and fill openings as soon as possible. The per-student cost is usually budgeted on a full-quota enrollment plan, so any reduction adversely affects it -- which is why you ought to select more students than your desired student enrollment. (See Recruitment and Selection.)

- Develop a variety of alternatives for staffing the tutorial pool (if you have one), such as qualified college students enrolled in teacher-education programs and needing practical experience, students eligible for work-study grants, peer tutors, and volunteers from community-service organizations. Help the Skills Specialist maintain a pool of effective and interested tutors and ensure that the tutors hired are, in fact, needed.

Exhibit 1

Far West High School Staffing Pattern
(For 220 Students)


PROGRAM DIRECTOR
SECRETARY
LEARNING COORDINATOR
SKILLS SPECIALIST
RESOURCE ANALYST
LEARNING COORDINATOR
LEARNING COORDINATOR
TUTORS
(University students on work-study grants)
LEARNING COORDINATOR
LEARNING COORDINATOR
LEARNING COORDINATOR
LEARNING COORDINATOR

Non-personnel costs represent only a small percentage of the total budget, but they can be controlled more easily than personnel costs. For example, if students are issued bus tickets or tokens for public transportation, require them to enter their destinations in a log and provide them only the number of tickets necessary for round-trip transportation. Alternatively, you might estimate the average allowance per student and simply issue that number to them each week. (This method might cost less than spending staff time to assure that the bus tickets are used for school business only.) If a student's needs exceed the average, his LC could authorize additional tickets.

Telephone costs are another item that can be controlled. The major expense stems from the number of instruments installed, but don't have too few. Students, staff, and resources must be able to call in and out without major delays. A good ratio is one telephone for every 25 to 30 students.

Although students must have access to reference materials, you should avoid purchasing what is easily available to them in the community. (See Supplementary Curriculum for a discussion of what should be on hand at the school and what is ordinarily available elsewhere.) The copy machine should be available to students, but located so that a staff member can oversee its use. Finally, in controlling non-personnel costs, don't underestimate the value of asking the students to help solve problems.

Communications

Your staff will be working with students in a new way, teaching new things (decision-making, problem-solving, and planning), having to deal with different kinds of problems, and often using unfamiliar teaching strategies. Effective communications, therefore, are vital to program success. You should hold regular staff meetings where problems, instructional strategies, and successes can be shared.

These weekly or biweekly meetings are as important to staff as advisory group meetings are for students. The staff members need to discuss problems they are encountering in working with students, such as helping students overcome freedom shock, resolve fears about working with strangers in the community, or take more initiative in planning their own learning programs. Books and articles that describe useful teaching strategies also should be discussed and shared. Techniques and tactics used by various staff members should be explained and their effectiveness assessed. Staff meetings can also be used to bring in guest educators to provide in-service training, share the latest research results, and help the staff solve any internal problems.

These should be the major purposes of staff meetings, but they are also necessary to "take care of business," such as keeping the staff abreast of district decisions that may affect the program, asking the staff's opinion on purchasing needs, and planning program-wide activities like graduation and credit assignment.

LCs occasionally should sit in on each other's advisory groups, project seminars, and, if possible, individual student conferences. Each LC will have a style and will use teaching methods different from those of his colleagues. Each of them can benefit from his colleagues' skills and experience by observing them in action and offering feedback and constructive criticism. Permission should always be sought before one staff member observes another. The observer should discuss his observations with the subject as soon as possible. You can facilitate this process by substituting temporarily for a staff member who wishes to observe a colleague.

Weekly bulletins can help LCs keep their students informed of upcoming events and general announcements. Items of particular importance can be highlighted by LCs in advisory group meetings; otherwise the bulletin should be posted outside LCs' offices. These bulletins should include such items as:

- dates and times of regularly-scheduled activities,
- special events,
- open houses for parents and students,
- prescheduled Orientations at resource sites for groups of students,
- resource visits to the school,
- parent meetings,
- deadlines for submitting plans or products,
- updated information on resources and newly-developed resources,
- films,
- schedule changes for tutorials and workshops, and
- student behavior concerns.

Parent meetings are usually held at the midpoint and end of each term. The purpose of these meetings is to keep parents informed about the program and to enable them to chat informally with staff about the progress of their students. Parents should also know when and how they can reach their students' Learning Coordinator if they have a question or a problem.

Your communications with the district administration are also extremely important. The more the central staff knows about EBCE, the more inclined and better able it will be to support the program with the School Board and in the community. You want, as much as possible, to have EBCE considered a regular part of the district, not an offshoot. Make sure your program is represented at meetings called by the district. Invite district personnel to visit your school and observe activities. Keep them informed about students' project activities. Caution those of your staff who attend district meetings to never try to build EBCE's image by criticizing regular high schools; this tactic may cause irreparable damage. The Policy Advisory Board, if one is organized, can also help you keep the district and other segments of the community informed about EBCE activities. (See External Relations for a discussion of the functions of such an advisory board, as well as general principles and specific methods of communicating with the program's constituencies.)

Extracurricular Activities and Social Events

Except perhaps for a school picnic or other ice-breaker at the beginning of each term to help students get to know one another, and graduation ceremonies at the end of the year, the Far West EBCE model neither incorporates nor precludes specific extracurricular activities or social events. Special-interest activities (such as foreign affairs, bridge, or back-packing clubs; social events such as dances, picnics, and excursions; and other organized school activities such as student government, a newspaper, a debate team, or competitive team sports) should begin and be maintained because students want them enough to organize and work on them, not just because the staff, or parents, have an interest in them.

We live in a society replete with service, sporting, recreational, special interest, political, intellectual and other kinds of volunteer organizations that work because their members want to, and know how to, plan and organize group activities. Students entering the world of adults ought to learn how to plan and organize their own avocational activities, whether solitary or group-oriented. You should help them learn how to do what they want to do, but if you plan it all for them you deprive them of the opportunity to learn to plan and organize for themselves.

All of the above is not to say that group activities are unimportant. Advisory group meetings and project seminars are important mechanisms for assuring that students -- otherwise engaged in their individual and very different programs and projects -- get to know one another, exchange ideas, opinions and feelings, and develop a sense of being part of the larger student body.

Far West School had a large room set aside as a student lounge area once morning advisory group meetings were over. The lounge, furnished in part by the students, was an active hub of the school, used for meeting friends, informally sharing experiences and ideas for projects, helping one another work out plans for projects, and organizing extracurricular activities and social events.

As a separate, city-wide high school with a small enrollment, Far West School could not support a regular football, baseball, or basketball team. The staff did arrange for interested students to participate in intramural sports activities at high schools in their neighborhoods. Otherwise, Far West students arranged their own sporting events. Several interested students organized a basketball team, practiced in a nearby church basement, and arranged to play against some other alternative schools in the area -- with staff members recruited as cheerleaders. They also organized and planned picnics, field trips, dances, and a variety of other group activities.

If your program is located within a larger high school campus, it should be simple enough for your students to participate in the school's sports programs, band, orchestra, clubs, social events, or other extracurricular activities. If not, your staff should decide in advance its policy on "providing" students with organized social and extracurricular activities, or encouraging the students to organize their own. If you choose the latter, staff should be available to serve as resources as requested, to help students plan and carry out activities, or to chaperone events or excursions organized in the name of the school. Whatever your policies, be sure they are explained early to students and to their parents.

Graduation

Each FWL-EBCE site may differ on the handling of graduation exercises. At Far West School, during years when many students elsewhere were blasé (if not scornful) about such traditions, students on their own initiative planned rather lengthy and elaborate ceremonies. These were in addition to the regular high school graduations where they received their diplomas.*

If your program is located on a regular high school campus, your students will be participating in the school's regular graduation exercises. Even so, a separate EBCE graduation event of some sort may be desirable. It can help weld student body spirit and pride in the program and aid in building support from parents and other community members.

Whether held separately or as part of a traditional ceremony, the graduation exercise ought to recognize key persons associated with the program. Perhaps most important is the need to honor the resources who have given time to the students. Far West School gave "Certificates of Appreciation" to its most active resources. Legislators and other political figures who supported the program, some of whom were themselves resources, were invited to the exercises and acknowledged from the dais.

Students should play a major role in planning and conducting their graduation ceremonies, with assistance and coordination from a staff member. Information concerning students' projects can be of interest to the audience, and will make the ceremony more personal. This is especially true when some of the students themselves participate in the presentation by introducing guest speakers and staff.

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* During the three-year development period, Far West School students were registered at a regular high school, where that principal and a counselor signed off on EBCE credits and the diploma.

Insurance and Liability

Insurance coverage has been and is a complex problem, especially when students are using the community as their classroom. The Laboratory's solution, in operating an EBCE program for three years in Oakland, may not be the same as a school district's. Each EBCE site to date has taken a somewhat different approach to the purchase of coverage. Remember, though, it is impossible to purchase insurance to cover all contingencies, and though most states provide some immunity for school employees, no policy can ensure that a school employee will not be sued. Be aware also that liability issues are not unique in EBCE; indeed, most insurance issues affecting EBCE would also apply to a regular high school. Experience suggests that potential liability will not deter resources from participating.

Any plan must be concerned with the following possibilities:

- A student could be involved in an accident while traveling to or from, or while participating in, field experiences.
- Resource Persons and Organizations could be held liable for personal injury or property damage, as could school employees.
- Resource Persons, though covered by their employers' workmen's compensation insurance, could be injured while working with an EBCE student, for which injury the school could be held liable.
- Resource Persons, using their personal vehicles to transport an EBCE student, may not be adequately insured against potential liability in case of an accident.

You must work closely with district administration to become thoroughly familiar with all aspects of your district's insurance coverage and potential problems. If the district advises that all is in order, you should become conversant with all relevant provisions of the coverage, keeping a copy of the policies on file. The principal sources of information are the schools' legal officer and the insurance broker(s) who sold the policies. If coverage is not yet secured, you should immediately engage these same people to obtain it. For whatever help it may be, the Laboratory's EBCE insurance coverage while operating Far West School is described in the following paragraphs.

Student Coverage

Each student was covered while traveling to and from resource sites, as follows:

Accidental Medical:	$5,000 maximum ($25 deductible)
Accidental Death or Dismemberment:	$5,000 maximum

In addition, any personal injury or property damage for which the Far West Laboratory or an FWL employee was liable at law (whether through negligence or intent) was covered up to $2,000,000 by the Laboratory's general liability policy. This included automobile-connected injury, but for this purpose Resource Persons did not qualify as Laboratory employees.

Resource Organization Coverage

In addition to the above, any personal injury or property damage for which a Resource Organization, or a Resource Person working for the Resource Organization, was liable at law was covered up to $2,000,000 by FWL's general liability policy, provided that the Laboratory executed an Agreement for Participation in EBCE holding the Resource Organization and its Resource Persons harmless and filed the Agreement with the insurance carrier.

Each Resource Organization which so requested obtained coverage under FWL's $1,000,000 policy covering general liability at law for personal injury to a student resulting from any negligent or intentional tort on the part of the Resource Organization. This was requested in so few instances that the extension did not affect the premium rate.

Resource Person Coverage

Each Resource Person was covered by FWL's workmen's compensation policy while working on a volunteer basis for EBCE. A log was kept by program staff of all Resource Person contacts and a summary of the log was forwarded to the

Laboratory's payroll department at the end of each month. This coverage was supplemental to the Resource Person's coverage through his employer, and was operative only when the person was actually on Far West School business.

In addition, any personal injury or property damage for which FWL or an FWL employee was liable at law (whether through an intentional or negligent tort) was covered up to $2,000,000 by the Laboratory's general liability policy. This included automobile-connected injury, but for this purpose Resource Persons did not qualify as FWL employees.

Automobile Liability

Resource Persons using their personal vehicles for EBCE business were not covered by the Far West Laboratory's automobile liability policy. Therefore, they were required to provide evidence of insurance to the school before transporting students in personal automobiles. This applied both to Resource Persons and to students who might be asked to chauffeur other students. The Program Director was responsible for assuring compliance with this provision.

* * *

Your staff members might be provided with a supply of the business cards of the district's legal officer and insurance broker to give to resources and others who request further clarification of the coverage.

Legal Issues

Before and since the inception of EBCE, several studies were conducted to identify legal issues that might affect educational programs that permit students to earn academic credit for individually-planned activities in the community. Perhaps the only valid generalization derived from these studies is that individual states vary tremendously in the scope of their educational codes. There is even some disagreement among the states on the purpose of such laws. For example, in some states specific legislation is required before a school is authorized to adopt a new program, while in others the requirement is simply that no existing law specifically prohibits the adoption. Therefore, you should become well versed in your state's educational code, particularly as it pertains to educational requirements for individualized, experience-based, career-oriented alternatives to the regular high school.

The general provisions of the labor law, which apply to all states, will not affect EBCE students because their learning experiences at resource sites do not classify them as workers or employees. However, if a student holds a part-time, after-school job, labor law does apply. Similarly, if work-experience credit is assigned, care should be taken to ensure that it is in compliance with the state education code requirements. As administrator you must be sure your staff understands the complexity of this law and how it applies to EBCE students.

In addition to being well-informed about the relationship of EBCE to labor law, you should avoid the improper use of terms which may create the impression that EBCE students engage in productive work, rather than in career-oriented learning experiences. A few of these terms are "job," "job site," "work assignment," "supervisor," and "employment site." Remember, EBCE students work with, not for, Resource Persons and Organizations in pursuing their experience-based learning projects.

Schedules

Although each student works out his own schedule of activities, students do have some events in common. Advisory group meetings, project seminars, staff office hours, and tutorials should occur at fixed times each week. So that students can better plan their activities and schedule their time, these events should be posted on a master schedule. In order to avoid forcing students to choose between two necessary activities, you and your staff need to plan carefully when these meetings will take place.

Each Learning Coordinator meets with his students in advisory group sessions two or three times a week for a total of three hours. When a group is larger than 15 students, it is recommended that the LC divide it into sections for these meetings. You have some obvious choices about how to schedule these meetings: three times a week for an hour each, or twice a week for an hour and a half. If the groups are divided into sections, the schedule is complicated by having to hold more meetings, and your LCs may wish to have their entire groups get together once a week as well. Don't schedule any required project seminars at the same time as a required advisory group meeting. Schedule essential tutorials concurrent with an advisory group meeting only if you can offer more than one tutorial section. An example of a master schedule is shown in Exhibit 2.

Each project seminar should be held twice a month at the same time and on the same day; for example, at 11:00 a.m. on Mondays. Each seminar is given on a particular day so that students always know when it will take place. On alternate weeks when the seminar is not meeting, the Learning Coordinator who serves as Package Coordinator should be available for individual consultation with students working on projects in that area.

Tutorials and workshops are usually conducted two or three times a week. The schedules for these activities depend in large part upon the tutors' schedules, but also upon when advisory groups and project seminars meet. That is why it is preferable not to hold advisory group meetings every day of the week, so the Skills Specialist has greater flexibility in hiring tutors

Exhibit 2

Sample Master Schedule

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
9:00 - 10:00 Advisory Groups: LC Groups 1 & 3 Basic Math Tutorial: Section A Algebra Workshop: Section A (to 10:30)	9:00 - 10:30 Advisory Groups: LC Groups 2 & 4 Basic Math Tutorial: Section B Algebra Workshop: Section B	9:00 - 10:00 Advisory Groups: LC Groups 1 & 3 Basic Math Tutorial: Section A Algebra Workshop: Section A (to 10:30)	9:00 - 10:30 Advisory Groups: LC Groups 2 & 4 Basic Math Tutorial: Section B Algebra Workshop: Section B Communications Workshop: Section A	9:00 - 10:00 Advisory Groups: LC Groups 1 & 3 Basic Math Tutorial: Section A Communications Workshop: Section B (to 10:30)
11:00 - 12:00 *(First and third Mondays*)* Life Science Project Seminar	11:00 - 12:00 *(First and third Tuesdays*)* Commerce Project Seminar	11:00 - 12:00 *(First and third Wednesdays*)* Social Science Project Seminar	11:00 - 12:00 *(First and third Thursdays*)* Physical Science Project Seminar	11:00 - 12:00 *(First and third Fridays*)* Communications & Media Project Seminar
12:00 LUNCH	12:00 LUNCH	12:00 LUNCH	12:00 LUNCH	12:00 LUNCH
1:00 - 2:00 Reading Workshop: Section A French Workshop: Section A Spanish Workshop: Section A	1:00 - 2:00 Reading Workshop: Section B French Workshop: Section B Spanish Workshop: Section B	1:00 - 2:00 Reading Workshop: Section A French Workshop: Section A Spanish Workshop: Section A	1:00 - 2:00 Reading Workshop: Section B French Workshop: Section B Spanish Workshop: Section B	1:00 - 2:00 Writing Skills Tutorial French tutor available Spanish tutor available
2:00 - 3:30 Advanced Math Tutorial	2:00 - 3:30	2:00 - 3:30	2:00 - 3:30 Staff Meeting	2:00 - 3:30 Advanced Math Tutorial

* *On the second and fourth weeks of each month, the Package Coordinator will be available at this time for individual assistance to students working on projects related to the package.*

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and scheduling supplementary activities. For example, the Skills Specialist may find a highly qualified tutor in math who can work with students only from 9:00 a.m. until 11:00 a.m. on Tuesdays and Thursdays. Unless he can find another tutor who can come at other times, some students will be forced to choose between their advisory group meeting and working with the tutor. Furthermore, intensive work in basic skills has been found to be most effective early in the day, when students are still fresh.

Staff members should set aside a couple of hours a day for office hours. During this time they will be meeting with students by appointment or on a drop-in basis. (LCs should meet with each of their students at least half an hour a week.) Learning Coordinators must also have time to contact resources to monitor their students' progress. Many of these contacts can be by telephone, but some must be on-site visits so that they can see what kinds of things students do and provide the resource with some personal contact from the EBCE staff. (See Learning Coordination for further discussion of progress monitoring procedures and techniques.) You must be sure that Learning Coordinators are using their time effectively and allowing time for these key tasks. Exhibit 3 provides a sample schedule for a Learning Coordinator with 20 students and an 8:30 to 3:30 workday. Of course, if your LCs are faced with the necessity of handling more students, they will have to make adjustments. For example, less time might be scheduled for open office hours or individual conferences with students might be cut to 20 minutes each.

Exhibit 3

Sample Schedule for a Learning Coordinator

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:30 - 9:00 Preparation 9:00 - 10:00 Advisory Group 10:00 - 11:00 Prepare for Seminar 11:00 - 12:00 Life Science Project Seminar or available to consult with students on Life Science projects	8:30 - 9:00 Preparation 9:00 - 9:30 Student 5 9:30 - 10:00 Student 6 10:00 - 10:30 Student 7 10:30 - 11:00 Student 8 11:00 - 11:30 Student 9 11:30 - 12:00 Student 10	8:30 - 9:00 Preparation 9:00 - 10:00 Advisory Group 10:00 - 12:00 Open Office Hours	8:30 - 9:00 Preparation 9:00 - 9:30 Student 16 9:30 - 10:00 Student 17 10:00 - 10:30 Student 18 10:30 - 11:00 Student 19 11:00 - 11:30 Student 20 11:30 - 12:00 Progress Monitoring	8:30 - 9:00 Preparation 9:00 - 10:00 Advisory Group 10:00 - 12:00 Open Office Hours
12:00 LUNCH	12:00 LUNCH	12:00 LUNCH	12:00 LUNCH	12:00 LUNCH
1:00 - 1:30 Open Office Hours 1:30 - 2:00 Student 1 2:00 - 2:30 Student 2 2:30 - 3:00 Student 3 3:00 - 3:30 Student 4	1:00 - 3:30 Open - Progress monitoring, review student plans and products, call and visit resources, contact parents, etc.	1:00 - 1:30 Student 11 1:30 - 2:00 Student 12 2:00 - 2:30 Student 13 2:30 - 3:00 Student 14 3:00 - 3:30 Student 15	1:00 - 2:00 Open 2:00 - 3:30 Staff Meeting	1:00 - 3:30 Open - Review Student Activity Reports, contact resources, compile attendance for week

Space Requirements and Utilization

The FWL-EBCE prototype was located in a downtown office building. Though since moved to a larger facility, and operated now by the Oakland Unified School District, the downtown identity has been retained. Other types of facilities have also proved to be feasible for EBCE. For example, one city-wide program is in a new, relocatable structure placed near the central business district on property owned by the Redevelopment Agency. Another city-wide EBCE program is in one large, partitioned room in a high school with students only from its own attendance area. Undoubtedly, many more approaches to EBCE space and facilities will be found as more programs are implemented.

Space utilization guidelines are emerging, though each site will possess unique opportunities, as well as problems. In general the following needs should be considered:

- Professional staff members should have private offices or cubicles where they can have confidential conferences with students and staff.
- Each LC needs periodic use of meeting space that is reasonably quiet, without traffic, and large enough to comfortably hold the whole advisory group. A separate room for each LC isn't necessary if the groups meet on staggered schedules and if there is a room where students whose groups are not meeting can study and talk. Meeting rooms can also be used for individual project activities, workshops, and project seminars when not being used for group meetings. You will need approximately half as many meeting rooms or large conference rooms as you have LCs.
- If tutorials or programmed materials are made available to students, a quiet space will be needed for them, too. If programmed materials have accompanying cassette tapes or visual materials that require machines to use them, you will need operating and storage space for this equipment.
- Reasonably quiet study space should be available for students.
- Security should be provided for student records.

Two other considerations should be kept in mind while choosing a site apart from an existing school. First, any nonschool facility must be approved by the local fire marshal (one should check all local ordinances to identify any other approvals needed); and second, a multistory office building that will serve both school and business tenants should be studied carefully for potential problems in traffic flow.

Staff Selection

The success of any educational program depends on the quality of its staff. The EBCE staff must be practiced in and able to model the skills and behavior students are expected to learn. They must be active learners themselves; curious about the world around them; eager to explore new subjects and ideas, to learn new skills, and to improve rusty ones. They should be planful, able to set goals, manage their time effectively, evaluate their progress, and replan as necessary. They should approach problems and decisions thoughtfully, seek as much information as they can reasonably get in the time available, anticipate consequences, examine their own values, and think through proposed solutions or actions before they leap. They must also, however, be willing to act and to accept responsibility for their actions.

The staff members must be able to place themselves in the position of an adolescent, struggling to find out who he is and what he wants to do with his life. They must ask questions that cause students to think, and they must listen to the answers if they are to help students discover and clarify their own interests, values, and goals.

Finally, they must be able to work together as a team. They must show consideration for the feelings and needs of others, respect differences in values and opinions, keep their commitments, and draw on each other's experience and expertise in order to expand their own.

It sounds like a tall order, but experience to date in staffing EBCE programs suggests that it is quite feasible. Remember, however, the key is in staff selection. You cannot expect preservice or inservice training programs to change basic values or behavior patterns.

Before you begin recruiting and selecting staff, you should read Learning Coordination, Resource Development, and Supplementary Curriculum to assure you have a firm grasp of, and can explain, these program functions to prospective applicants. Staff roles and qualifications are summarized in Appendix 2 of this document. These may be useful to you in developing job descriptions, posting vacancies, and developing selection criteria. Aim for a staff in diverse disciplines so that there will be at least one member qualified to coordinate each project planning package and to serve as an expert resource for students and other staff.

Your EBCE staff may well have already been selected by the time you read this. You will still be faced, over time, with turnover and the need to select new staff members. You may even find a need or a desire among staff to rotate, exchange, or reorganize and combine positions. At one EBCE site, the Resource Analyst and a Learning Coordinator decided to switch roles after the first term. Some sites have combined the roles of Program Director and Resource Analyst.* Several other variations are possible. If costs require that one or more staff roles be combined, you ought to consider using college work-study students or teaching aides to help develop resources or conduct supplementary activities. (See Resource Development and Supplementary Curriculum.)

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* This can be done, but be certain that the Resource Analyst functions are not slighted in the process. (What is the program without a good pool of resources?) At one site where these roles have been combined, the rest of the staff rotates every three months as assistant to the Director.

Student Conduct and Discipline

To make informed decisions about their own behavior and to be held accountable for their actions, students must first know and understand what is expected of them and what the consequences of misconduct will be. They must also believe that you will consistently and equitably apply appropriate sanctions. There is no point in establishing a rule if you are not willing to enforce it. For example, if you state that attendance at project seminars is required, you must back up that requirement with a sanction such as not awarding credit for projects without adequate participation in the seminars.

Before you or your staff make any rules governing student conduct, you should assure that several conditions are satisfied:

- The problem or potential problem which the rule addresses is real, clearly understood, and significant.
- The proposed rule or regulation is likely to achieve the desired effect.
- The proposed rule can be rationally explained to students.
- The staff knows what sanctions will be applied if students break the rule and is willing to impose those sanctions.

During orientation to the program, students should be informed of such things as the criteria to be used in judging whether their EBCE programs and projects are acceptable, and rules of conduct, including such things as student responsibility for keeping appointments with staff and resources, meeting deadlines, and completing required program forms.

You will find that new students need time to adjust to the structure of EBCE, which is very different from that of their previous schools. Generally, students whose participation in EBCE is considered less than adequate should be given time to improve, especially if they are doing satisfactory work in one particular area, such as the tutorials. The shyer, less confident students often will fill up most of their time with tutorials and workshops, staying close to the school. Such students may need several months before they really begin working on projects with Resource Persons and Organizations. Some students will spend a lot of time in the community, but not work with the developed EBCE resources. Rather, they will recruit relatives and friends of their family as Resource Persons for their projects. This type of student also needs time and help from staff and peers to develop the confidence he needs to meet and deal with adults outside his family circle. Other students tend to make visits to resources as a group, never developing a relationship with a resource in any depth. This type of student must be coaxed to leave the protective cover afforded by his group of friends.

When a Learning Coordinator identifies a problem with a particular student's participation, he should follow several steps that are meant to inform the student where his behavior is unsatisfactory, what improvements are needed, and what the consequences will be if he does not do certain things. In order:

- The LC confers with the student to determine whether he realizes there is a problem and to discuss why the problem exists and how it can be resolved. As a result of this meeting with his LC, the student should know what he has to do to correct his behavior. For instance, the student may be told he must begin actively working to develop a Project Plan and that, to do so, he should choose three resources to visit for Orientations in the next two weeks, plan these visits on Project Sketch forms, and report back to his LC after each visit on what he did, what he learned, and whether he has identified a possible project topic. (Learning Coordination discusses project planning and guidance techniques in greater detail.)

- If the student does not do what was agreed upon in the initial conference, a second one should be held, this time including the Program Director. Again, goals, standards, and deadlines should be set.

- If there is still no change in the student's behavior, his parents should be called in to discuss whether EBCE can meet his needs and to ask for their help in solving his problems. (Depending on the student's attitude and the nature of the problem, the LC may decide to talk with the student's parents informally before this time.) If the student and his parents decide to give it another try, they and the LC should agree on goals, standards, and consequences for failure to meet them, such as loss of credit or transfer from the program. If they feel another program would better meet the student's needs, then arrangements should be made to transfer him.

Of course, violent or abusive behavior toward staff, other students, or resources demands more immediate disciplinary action.

When personal problems, such as drug or alcohol abuse or family conflicts, interfere with a student's performance, you ought to advise him and his parents to seek professional help. To do so, you must know what professional resources are available through the district and within your community.

Student Entry and Exit

You need to develop procedures for handling student transfers between EBCE and other high schools or programs. Even one transfer ineptly handled can harm the image of the whole program. Even more serious, however, is the possible adverse effect on the individual student.

Procedures for entering students should be worked out in advance with the district, and with those schools from which new students will be drawn. It is especially important to arrange to obtain students' transcripts promptly so that program planning can begin as soon as the students are oriented to EBCE.

Exiting a student may, in the case of a junior or senior, involve a return to a former high school. In the case of a sophomore, it may, if your district has three-year high schools, entail a move to a school never before attended. Both are serious situations which should never grow out of a sudden or unilateral decision -- most certainly, it should never be made in anger and neither should the student simply be "exited" without plans for an orderly transfer.

Since each transfer is different, every conference with the student must be planned in the light of the specific circumstances. (See the previous section, Student Conduct and Discipline.) A dramatic incident of gross misconduct calls for action that is very different from that required to deal with a student who is not mature enough to cope with individual responsibility, or one who believes he has fallen hopelessly behind in his work. Whatever the reason, the primary consideration should be the development of an orderly and mutually-understood plan for placing the student in a program that will better meet his needs.

If your EBCE program has recruited students from throughout the district, you should be sensitive to the effects of sending significant numbers of students back to other high schools. Administrators, teachers, and counselors will be more than slightly annoyed if you recruit their students, keep the good ones, and return only the problem cases.

If your recruitment and selection techniques were effective, you will have a waiting list of students from which you can draw new ones whenever enrollment drops due to transfer or midyear graduation. See Student Recruitment and Selection for a discussion of selection criteria and procedures.

Trouble-Shooting and Problem Solving

You can't be everywhere at once and know everything that's happening, so how can you tell if the program is being implemented as planned and operating smoothly? You need first to identify some key "indicators" that will signify things are going well or that there are some actual or potential problems you and the staff need to deal with. The indicators you use will depend on how you and your staff envision your program operating -- your goals. For example, you will probably measure your success to some extent by the degree to which your resources in the community are satisfied with their participation and want to continue working with students. Far West School staff found that a key indicator of resource satisfaction was the extent to which Learning Coordinators had contacted the resources to talk about the project plans and progress of students with whom they were working. To assure that these contacts occur, you and your staff might set as a goal that each Learning Coordinator contact ten resources per week, on the average.

You might also judge your success in part by whether your students are spending a substantial portion of their time working directly with Resource Persons and Organizations in the community, taking advantage of EBCE's expanded learning resources. Far West staff's goal was that on the average students would be spending approximately 30% of their time (about 8 to 10 hours each week) getting firsthand experience at resource sites in the community -- recognizing, of course, that some students would spend more time, and some less, in field work, depending on their interests and readiness for self-directed learning. Once you have set some operating goals, and identified some measures or indicators of success, you need means of obtaining information about how well you are succeeding. In addition to talking with students and staff, observing staff in action, and periodically reviewing some of the students' records, you should consider instituting some or all of the periodic staff reports suggested below.

The key to effective program management is an "early warning system" that will alert you to potential problems before they become real or widespread. The most serious problems can occur in (1) unexpected declines in enrollment,

(2) excessive attrition of resources, (3) unexplained student activity, (4) poorly-planned or trivial student projects, and (5) poor use of staff time. The following sections cite indicators or early warning symptoms that will help detect problems before they become crises.

Enrollment

On the Student Enrollment Report (Appendix 1, Item 1) the School Secretary can record the number of students who have entered and left the program and why. Through this report, which can be completed as often as necessary (once a month, once every two months, once a term), you can observe trends, particularly in losses, that have implications for changes in program procedures. If, for example, a substantial number of students ask to be transferred out of the program during orientation, you can infer that they did not learn enough about EBCE before they enrolled. (See Student Recruitment and Selection for a discussion of the relationship between the selection procedures used and the rate of return to the regular high school.)

Resources

The size and breadth of the resource pool can affect how much time students spend out in the community and the kinds of supplementary activities that must be provided. If, for example, a considerable number of resources have been developed in the area of the social sciences but none in the life sciences, students will not be able to complete biology projects. The Resource Analyst uses the Resource Log (see Resource Development, Appendix 5, Item 3) to compile information about all developed resources, whether they are still active or have stopped (temporarily or permanently) participating in EBCE. Data should be summarized monthly and reported to you using the Resource Pool Report (Appendix 1, Item 2). This report will help the staff decide whether the available resources will meet student needs and, if additional resources are needed, in which areas.

Some turnover in resources is normal. Most resources who end their participation in EBCE do so because of a change in jobs. A substantial number of resource withdrawals from the program, however, can be an indication that something is wrong. Sometimes resources lose interest in EBCE if they rarely see any students, or they may be frustrated by students who are not adequately prepared for their visits. If significant numbers of resources who withdraw cite such reasons, staff need to correct the problem by better preparing students for resource visits and keeping in closer contact with all resources.

Student Activities

Students report their activities weekly on the Student Activity Report (SAR)*, showing the number of hours spent with resources (each Resource Person, Resource Organization, and Community Resource is identified by a different code), in project seminars and advisory group meetings, preparing products for projects, and in supplementary and other school activities. While the SARs tell where and how students are spending their time, more specific information is needed to spot problems. Summary staff reports and students' files provide additional data about students' project and supplementary activities.

Project Activities

When SAR data are compiled on a weekly basis for each student and by LC group, the staff has an overview of how students are spending their time. If you have access to computer facilities, you can adapt the FWL computer program for summarizing SAR data. (Address inquiries to the FWL-EBCE evaluation staff.) This program presents a summary for each student, and an average for all students, of the number of hours per week spent with resources and in other program activities. Thus staff can determine how students are using Resource Persons, Resource Organizations, and Community Resources and compare that information with the amount of time they spend on other school activities. The summary can help the staff decide if changes are necessary in student or staff procedures to assure that students use program resources to maximum advantage.

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* See Learning Coordination, Appendix 2, for a copy of the SAR form.

Learning Coordinators can also use the SAR to learn what specific students are doing, to identify problems, and develop appropriate instructional strategies.

If no computer facilities are available, LCs should regularly review a sample of their students' SARs to see how they report their time. In this way LCs can spot actual or potential problems with individual students and trends within their own groups. They might find, for instance, that some students spend all or most of their time with student-recruited resources, which may indicate a reluctance to meet strangers. (Student-recruited resources are often, though not always, family members or friends.) LCs can compare their SAR review findings with one another to obtain a broader perspective of their groups' project activities.

In order to obtain information about students' overall productivity and help the staff decide whether changes in procedures are needed, LCs summarize their students' projects by package area. The Summary of Students' Projects (Appendix 1, Item 3), completed monthly, reports the number of projects undertaken by each student since the beginning of the term, the average number started and completed per student to date, the total number awarded credit to date, and the number of projects undertaken and completed within each package.

Once each term you should review a sample of student records to confirm that activities are properly planned and documented, and to get a better idea of the quality of the projects students are submitting. During credit assignment, you should also spot-check the amount of credit being awarded by each LC. You may find the criteria for an acceptable project are applied differently, or that LCs are confused about the kind of credit to award certain projects.

Supplementary Activities

The Skills Specialist maintains records of the supplementary activities offered and how many students participate in each. (See Supplementary Curriculum for information about that record system.) At the end of every term, you may wish to request a summary report. If the report shows that many more students sign up for tutorials or workshops than complete them, it may mean that tutors have not had sufficient orientation or supervision, that students are being assigned supplementary activities, or that some other problem is occurring.

Staff Activities

Learning Coordinators should get in touch with each resource with whom a student is working on a project at least three times: once as the Project Plan is being developed, once approximately midway to monitor progress, and again when the project has been completed. Each visit and phone call should be reported using the Resource Contact Report - Student Assessment. (See Learning Coordination, Appendix 2.) By communicating with resources, LCs not only learn how their students' projects are progressing, but they can verify their SARs and, more importantly, provide the resources with much-needed personal contact from EBCE staff. LCs summarize these contacts every week (or every two weeks, as needed) using the Summary of Resource Contacts (Appendix 1, Item 4).

The staff should also summarize meetings or phone calls with parents and report them to you in memo form. If you receive few such reports, you may find parents are not getting enough feedback about their students' plans and progress.

Each staff member should post and keep regular office hours. When leaving, he should put a note on his door stating where he is and when he will be back. Some time should be set aside for conferences with students by appointment and some for drop-in visits. Every staff member also needs uninterrupted time alone to complete paperwork, telephone resources, and review students' files.

One key question to answer is whether the staff is making good use of its time. Most of your staff will not have had to plan their schedules on a daily basis before. Some will experience the freedom shock many students go through when they first enter the program. The summary reports discussed above can be used to spot trouble within the staff as well as within the student body. If, for example, one or more of the LCs are reporting very few contacts with resources, you know something is wrong. Either not enough students are working on projects or progress monitoring is not taking place. You may find that the LCs have not properly organized their weekly schedules to allow sufficient time to visit resources or that some staff members, like some students, may not feel comfortable interacting with strangers. You may need to provide some staff development either in time management or in meeting and dealing with resources.

You should periodically observe advisory groups, project seminars, workshops, and tutorials to learn how the staff members conduct such group activities. Some of them will have had considerable experience working with students in small groups and teaching them decision-making, problem-solving, inquiry, and interpersonal skills. Others may be more experienced working with larger groups and may not feel completely comfortable or confident using EBCE instructional methods. You may find some LCs are not sure what they should be doing in either advisory groups or project seminars. They may, therefore, spend most of the meeting time helping students fill out forms or asking them simply to report what they are doing in their projects. Such group sessions are repetitive and boring for students. (Learning Coordination discusses the purposes of advisory group meetings and project seminars and suggests instructional techniques to use in them. See also the workshop descriptions in Orientation. Many of the activities described there can and should be repeated throughout the year.)

* * *

What you learn from summary reports, observing group activities, and sampling students' projects should be discussed in the staff meetings. The whole staff needs to decide whether, in fact, a problem is indicated. For instance, one staff member may have good reasons for not having called or visited many resources for the past two weeks. He may have had recent contacts with most of his students' resources and felt he could better spend the time working with several students who needed individual help before they could arrange resource visits by themselves.

When the staff decides a problem does exist, there may be several possible solutions. One or more staff members may need help organizing their time. A shifting of staff functions may be necessary. Or some staff development activities might alleviate the problem. For example, if LCs feel awkward contacting resources, you or the Resource Analyst could conduct a workshop (designed along the lines of the Learning Resources Workshops in Orientation) to better prepare them and increase their confidence when calling on RPs and ROs. When a staff member has expertise in a particular technique or teaching strategy, his knowledge should be shared. For example, if one LC has experience leading values clarification workshops, he could assist the others by allowing them to observe his advisory group or by conducting such a workshop for the staff.

What you should remember is that the information you collect should not be used only to evaluate individual staff members' performance, but to learn whether problems exist, catch them before they become crises, and unite your staff in solving them.

3. External Relations

External Relations

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January 1976

Experience-Based Career Education Program
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This handbook was created by the FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT under contract to the National Institute of Education (NIE). The opinions expressed here do not necessarily reflect the opinion of NIE nor endorsement by any other government agency.

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The Laboratory's mission is to carry out surveys, research, development, and demonstrations in education and to disseminate information derived from such activities; accompanying programs of teacher, administrator, and parent education are also a focus of the Laboratory's work. Programs conducted by the Laboratory are intended to offer a clear and firm prospect of being implemented by schools and other educational agencies. In the course of these efforts, the aim is to assure that the evaluated outcomes of research and development are presented effectively to schools and other educational agencies.

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Table of Contents

Page

INTRODUCTION 1

KEY EBCE CONSTITUENCIES 3

  Employer/Community Resources 3
  Service Organizations 3
  Unions and Professional Associations 4
  Educational Institutions 4
  Parents 6

ASSESSING LOCAL EXTERNAL RELATIONS NEEDS 7

  Determining Assistance Needed 7
  Gauging Potential Support or Opposition 8
  Problems Encountered by FWS Staff 9

SOME GENERAL PRINCIPLES OF EXTERNAL RELATIONS 13

  Avoid Criticism of Other Educational Approaches 13
  Be Honest and Direct 14
  Avoid Philosophical Arguments 14
  Stress Contributions Others Can Make 15

EXTERNAL RELATIONS STRATEGIES

  Educating the Community 16
  Involving Key Constituents 18

RELATIONSHIPS WITH ORGANIZED LABOR AND PROFESSIONAL ASSOCIATIONS 23

Introduction

While Experience-Based Career Education (EBCE) is based on the premise that the student is the primary client of its educational program, an EBCE staff must be aware of and responsive to the needs of broader constituencies whose financial, political, and moral support is essential to any public educational enterprise. As an alternative program which relies on volunteer individuals and organizations in the community to provide learning experiences for students, EBCE has even greater needs for positive working relationships with that community.

This handbook provides guidelines and suggested strategies for planning and developing effective relations with individuals and institutions upon whose support and cooperation the success of the program depends. The broad goal of an EBCE external relations program is to establish and maintain open channels of communication with key constituents (parents, employers, unions, professional associations, community groups and organizations, other educational institutions, and political decision-makers), to enlist their assistance in implementing and operating the program, and to obtain their support in ensuring its continuation and integrity.

Each EBCE program will need to identify its own external relations needs and plan strategies for meeting those needs based on careful consideration of its institutional relationships and its sources and level of support from key constituent groups. This handbook offers both a general framework for planning and illustrative examples from the Far West School (FWS)* experience to help local staffs make more informed decisions regarding external relations activities. The handbook is organized as follows:

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* The Far West Laboratory EBCE model was developed and tested at Far West School in Oakland, California. FWS was established as a separate city-wide high school in a downtown office building, and was operated by Far West staff with the cooperation of the Oakland Unified School District. This institutional relationship created special external relations needs peculiar to the operation of a separate alternative school program.

- Key EBCE constituents are identified along with considerations in deciding whether and how to establish formal and informal channels of communication with each.
- Suggestions are offered for assessing local needs. Some problems encountered by FWS staff are also described.
- General principles of external relations derived from the FWS experience are discussed.
- Alternative external relations strategies are described along with some of the factors to consider in making strategy decisions and selecting specific techniques that may be used.
- Guidelines and suggestions for establishing a policy advisory board similar to that of Far West School are provided.
- Guidelines for establishing cooperative relationships with organized labor and professional associations are also offered.

This handbook assumes you have read and are familiar with the Far West Laboratory (FWL) model of EBCE, as described in the Program Overview.

Key EBCE Constituencies

Employer/Community Resources

EBCE cannot function without Resource Persons and Resource Organizations in the community where students can acquire knowledge and skills through individually designed projects. Their support is essential to the program's existence. Resources can be involved in the program in other ways too, so that the program can benefit from their expertise and so that they have an investment, through representation, in the planning and policy-making apparatus of the program. If, for example, student attendance at resource sites becomes irregular, resources can help find solutions. One resource for FWS recommended that students who participate in activities at his site be given time cards which they would have to punch in and out on each visit. Thus students had to conform to procedures employees at the site had to follow, and their attendance improved. FWS staff now suggests, but does not demand, that resources ask students to follow timekeeping procedures used by workers at the site.

Participating resources can also be very helpful in identifying and recruiting new resources. Their satisfaction with the program is obviously important to enlisting the support of others.

Service Organizations

Organizations such as the Chamber of Commerce, the Rotary, the Junior League, and the League of Women Voters can help identify and recruit resources. (Members themselves often become resources.) If they are well informed about the program, they can help EBCE staff inform other members of the community. Their assistance can also be very helpful in eliciting general support within the business and local government sectors.

77

Unions and Professional Associations

Union participation in EBCE is important to enable students to learn about unions and the significant impact they have had on the business, industrial, and social structure of our country. Union membership is a necessary part of many careers. Labor unions can help identify and recruit resources and themselves serve as Resource Organizations for the program. In some career areas, you will not be able to recruit resources without the active cooperation and support of the appropriate unions.

Since membership in a professional association is a necessary part of some careers, students should also be exposed to such organizations whenever possible. Again, resources may be found within the membership of these organizations and members can help identify and recruit resources.

As professional and union organizations often have lobbyists working at the state and federal levels, their support can be significant in influencing legislation, governmental regulations, or fiscal policies affecting EBCE as an alternative educational program.

Organized teacher support or opposition can affect the success and continuation of any new educational program. Teachers' unions and associations can help educate their members about the nature and purpose of EBCE and unify their support for it and other alternative programs.

Educational Institutions

At a minimum, the local school district board and administrators, faculty groups, local colleges and universities, the State Department of Education, and even neighboring school districts need to be informed about EBCE. Their active support and cooperation will help ensure the continuation of the program.

It is the local school district upon which the EBCE staff is most dependent and to which it is ultimately responsible. The EBCE staff will need adequate time to plan the implementation of the program and begin developing resources, as well as help in arranging such logistics as telephones, space, and printing of forms. Over time, the district will need evidence of program results so that decisions to continue the program can be justified. The EBCE staff will want to develop positive relations with district offices as early as possible and identify in advance the kinds of information about program progress and outcomes that is needed by the decision-makers.

Individual faculty members and groups within the district or school (such as teachers, vocational educators, or counselors) are potential sources of support (or opposition) for an EBCE program. Depending on the approach of the EBCE staff, they can view the program as complementary to their own, an additional resource available to them to meet the needs of students, or as a threat to their own educational standards or security. Early action not only to inform them about the program, but to elicit their assistance in program planning and recruiting employer/community resources, for example, will help dispel potential problems.

EBCE staff needs to be well informed about the entrance requirements of local colleges and universities, including provisions for students in alternative high school programs, and admissions officers need to know about EBCE's academic standards. Local colleges and universities, in addition, offer excellent educational resources for EBCE students. Students can not only acquire subject matter knowledge by working with their staff as Resource Persons and visiting campus facilities open to the public, but they can also learn about the teaching and research fields. In addition, arrangements can be made enabling EBCE students to sample college-level work before deciding whether a college education is necessary or desirable after high school.

The State Department of Education must be well informed about the program and supportive of its aims. If special start-up funds are needed, or if special legislation is required, the district may need to turn to the Department for assistance. The knowledge, interest, and support of state officials can help ensure program success by adding credence to the views of local supporters.

Other school districts' cooperation can also be important when the implementing district cannot recruit the minimum number of students it needs for the program and would like to accept students from neighboring districts. If one district is interested in implementing EBCE but feels there are insufficient resources within its boundaries to support the program, it might seek a cooperative arrangement with one or more surrounding districts to share the costs of implementing an EBCE program.

Parents

Some parents take a very active interest in school activities, policies, and procedures; others do not care what goes on in the school as long as their children are happy and they receive no bad reports. Parents can be very helpful in recruiting resources and in supporting staff in guidance and teaching strategies they use with their students. An active and informed parent group can generate support within the community by explaining the program to their friends and colleagues and expressing their satisfaction to school and district staff. Some parents will themselves serve as resources. Parents have a varied background of knowledge and expertise which should be tapped whenever possible.

The staff also needs to know what parents expect from the program. They may have very specific expectations about how and to what extent students will develop basic skills, how staff will monitor students' progress, or the sanctions that will be used to ensure that students conform to program policies and procedures. In some cases, those expectations will be realistic and helpful to the staff in implementing and developing the program. For example, at FWS parents' expectations that the staff would know where their children were at all times helped to create a form called the Weekly Activity Schedule, on which students reported where they planned to be each week, listing appointments with resources or external courses as well as tutorials, advisory group meetings, or other activities at the school. In other cases, parents' expectations will represent a misunderstanding of the program's concepts and goals. Some FWS parents, for example, wanted school staff to convince their children to go to college rather than encouraging them to explore many options so as to make more informed decisions.

External relations efforts aimed at making sure that parents, as well as other key constituents, have adequate information about and realistic expectations of the program are well worth the staff time and energy they require.

In the next section we offer some suggestions to help you assess your own external relations needs before discussing some general principles and strategies for meeting those needs.

Assessing Local External Relations Needs

In planning your external relations program you should concentrate on:

- acquiring needed assistance in implementing the program (for example, in recruiting resources, arranging transportation, and other logistics);
- soliciting general assistance and support (obtaining input to policies and procedures, assuring program continuity and integrity); and
- minimizing opposition to EBCE (by informing key constituents about the program's goals, purposes, underlying concepts, and structure).

The first step in planning an external relations program is to assess local needs in each of these areas. After needs have been determined, you can analyze alternative strategies for meeting them and then set goals, develop plans, assign tasks, and evaluate your efforts as you go.

Determining Assistance Needed

An EBCE staff will undoubtedly need help from others in the district or the community to get the program off the ground. Resources need to be recruited and developed; forms adapted and printed; arrangements made for space, equipment, and transportation for students and staff; and so forth. How much moral or actual support your staff needs will depend on the problems you anticipate in getting things done.

The active support of district administrators can save considerable staff time in finding out about and dealing with potential legal, financial, and administrative problems. While the superintendent and the board may heartily endorse EBCE, the district purchasing officer -- who has to approve and perhaps expedite the order for telephones you need to call potential resources -- may never have heard of it. A little leg work developing effective working relationships with various district offices can pay off in the long run.

The other primary area of needed assistance may be in recruiting employer, union, and other community resources to work with students. If the staff lacks the necessary contacts in the business community or anticipates a difficult selling job in its locale for some reason, extra efforts may be needed early to put together an advisory board to help with resource recruitment, or to elicit the active involvement of service organizations, unions, professional associations, and influential others. If the staff does not anticipate any major difficulties in recruiting resources, it can devote its time to developing the initial resource pool (an essential before starting operations with students) and use these other strategies later to expand the number and kinds of resources available.

These are some areas where assistance may be needed just to get the program started. To ensure its continuation and integrity, to maximize support and minimize opposition from the community, the staff will always need to devote some time and energy to educating the key constituents identified earlier. First, however, some effort should be directed at anticipating the sources and levels of potential support or opposition to the program so that possible problem areas receive immediate attention.

Gauging Potential Support or Opposition

To build support for EBCE, or head off opposition, first you've got to locate potential allies or opponents. Below are some questions which should help you assess the attitude of the local community.

- Are there individuals or organizations within the community which are likely to oppose implementation of EBCE? If so, is this opposition organized? If not, might it become organized?
- What is the anticipated basis for opposition? Could it be resolved by educational efforts or through active involvement in the program?

If not, what is the anticipated effect the opposition will have on the operation and continuation of EBCE?

- What is the anticipated basis for support? Are groups or individuals in the community willing and able to help overcome or counteract the effects of such opposition? Who are they and how could they help? What is the best way to enlist their aid?

- What other community groups also need to be informed about EBCE, and what information is most pertinent to each?

The staff will find that opposition is more often due to lack of information or misunderstanding than philosophical differences. Parent opposition may stem from a belief that the program is only for dropouts, or that participation in it will prevent a child from being accepted into a college or university. Teacher opposition may be caused by the belief that the program in unstructured (the label "alternative" can conjure any number of unfavorable images, such as "free," undisciplined, or lacking emphasis on basic skills); or that it threatens their job security because of its use of other members of the community in teacher-like roles; or because it is felt to be another vocational education program under a different name. One school staff implementing EBCE anticipated opposition from the vocational education staff; another, from certain academic disciplines. They therefore decided to include a vocational education instructor and an English instructor on their respective policy advisory boards.

We cannot tell you where, in your community, you may find the greatest support or opposition to the concept of EBCE, or which of the strategies discussed later will prove most effective in meeting your own external relations needs and goals. To help you anticipate your needs, however, we can share some of the problems encountered in implementing the program in Oakland, California.

Problems Encountered by FWS Staff

Some of the problems Far West School had to face were unique because it was a developing program needing to establish itself as a legitimate alternative with a future. Your EBCE staff, however, may find itself facing similar problems or the same problems to a lesser degree.

Getting Known in the Community

When Far West School was first begun, not only was EBCE an unknown concept within the community, but career education was also a relatively new term within educational circles. Therefore, the staff had to educate members of the community about both the school and the concept in order to recruit resources and inform potential student applicants. Student applicants and their parents had to be assured that the education students would receive would be comparable to, although different from, the standard high school curriculum.

Distinguishing EBCE From Other Educational Programs

Since career education was not well known as a distinct concept, it and EBCE were often confused with vocational education, work experience, on-the-job training, and similar programs. Often, potential resources and high school teachers, counselors, and principals assumed the program was intended for dropouts and potential dropouts. These misinterpretations of EBCE caused initial problems in recruiting a broad range of students for the program. The Far West staff also had difficulty recruiting resources, since many people felt incapable of handling what they thought would be dropout students.

Obtaining Union Cooperation

Partly because the original name of the national project was Employer-Based Career Education, and partly because union officials perceived the program as competing with their apprenticeship programs, union cooperation was not obtained until they fully understood the purpose and key characteristics of EBCE. This problem is discussed at greater length in a later section of this handbook, Relationships with Organized Labor and Professional Associations, beginning on page 23.

Obtaining Cooperation From Other Educational Programs and Institutions

Far West staff had to make special arrangements with other high schools within the district for EBCE students to obtain driver's education or to enroll in courses not available at Far West, such as orchestra, the Army Reserve Officer's Training Course, or a distributive education class to supplement work with a Resource Person in retail merchandising.

The Far West staff initially received numerous inquiries from college and university admissions officers when FWS students applied for enrollment. Science and algebra credits awarded by FWS were not accepted by the University of California until FWS staff met with university officials and explained the program to them. On occasion, FWS quality assessments of student work have had to be translated into grades when students applied to colleges and universities. Now most colleges and universities accept the atypical course work and structure of EBCE and other alternative programs. Far West School graduates are attending several campuses of the University of California, Fisk University, Mills College, several branches of the California State University system, and local community colleges.

Obtaining Police Cooperation

Because EBCE students are not confined to the classroom and individually and independently visit resource sites in the community, they have sometimes been subject to detainment by police for truancy. Until the school director gave a presentation about the program to the local police, and student identification card were issued, a few Far West School students were stopped on the streets by police.

Tendency to Drift From the Philosophy and Operating Principles of the Model

There is some tendency among students, parents, resources, and district staff to drift away from the philosophy and operating principles of the model, to return to educational practices with which they are more familiar. Sometimes these pressures are due to unclear perceptions of the EBCE philosophy and operating principles; other times they are due to the desire to alter them "slightly" to suit a particular need. An employer, for example, may see the program as a way of screening potential employees. Parents may believe that students should be required to take tutorials in areas they have shown deficiencies in, rather than being allowed to select tutorials (with their Learning Coordinator's guidance and encouragement) according to their own self-assessed needs. The staff as a group must be alert to such tendencies and be prepared to deal with them. If a policy advisory board is formed, it can help the staff resist such pressures. (See the section on forming an advisory board, beginning on page 20.)

Some General Principles of External Relations

The principles discussed below provide guidelines for conducting an external relations program. They grew out of the experiences of the Far West staff and are based on a belief that an honest, straightforward approach produces the best results.

Avoid Criticism of Other Educational Approaches

There are two mistakes your EBCE staff can make when conducting an external relations program:

1. It can become overly critical of other educational programs.
2. It can project unrealistic expectations of EBCE.

Criticizing other programs and other educational methods in order to build one's own public image only spawns criticism in return. Such self-serving tactics should be avoided because EBCE will not and cannot solve all the problems facing educational institutions today and because not all students function well in a program where they must make decisions, manage their own time, and work with people in the community. Indeed, many students believe that the traditional structure works well. EBCE can stand on its own merits without having to depend on calling attention to the failings of other educational methods. EBCE should be viewed as one alternative, not a final solution.

Unfulfilled expectations can cause problems: a resource who expects students to be willing to spend many hours working at mundane, low-skilled tasks may become resentful when students fail to keep their commitments or slacken their participation; the student who expects to spend all his time training to enter a particular career will be disappointed; and the parent who expects his child's participation in the program to lead to a firm career decision may be disillusioned. Therefore, it is incumbent upon the EBCE staff to inform prospective students, their parents, and resources of the exact nature of the program -- its goals, purposes, and structure -- so that their expectations will be realistic and decisions to participate will be based on an accurate understanding of EBCE.

Be Honest and Direct

No program is completely successful with all students all the time, and EBCE is no exception to that rule. While the staff should, of course, emphasize the positive aspects of the program, it should not pretend that problems are nonexistent. Any interested group or individual will seriously question the credibility of a program staff which does not admit to problems. Presentations and discussions should address the interests and values of the audience at whom they are directed in an attempt to answer some questions before they are asked. In response to questions, however, direct and truthful answers are essential to continued positive relations.

Avoid Philosophical Arguments

Do not get trapped into arguing philosophy with persons or groups whose values differ considerably from those on which EBCE is based. Philosophical arguments result too often in further polarization of positions, misunderstandings, and hostility. Do participate in discussions aimed at clarifying and explaining the underlying values of EBCE to ensure that philosophical differences are based on an accurate understanding of the program. EBCE's emphasis on student responsibility for deciding, planning, and carrying out individualized educational programs is sometimes misinterpreted as a lack of structure and a "free school" atmosphere. On the contrary, EBCE offers a structure within which students can make decisions and participate in planning their own activities, but then are held accountable for the consequences of their choices and actions.

Stress Contributions Others Can Make

One of the most exciting features of EBCE is that it involves all members of the community in the educational process. Emphasize the contributions individuals and groups can make to improve education for young people. Many people are not aware of the knowledge and skills they can share with students. Be observant and take the initiative; point out to these people the resources they have to offer.

External Relations Strategies

There are two basic strategies open to an EBCE staff: educating the community about the program's concepts, goals, and structure; and involving all or some of the key constituents directly or indirectly in program planning and implementation. Your staff will probably need both in some combination.

Educating the Community

Every EBCE staff will have to educate their community about their program. Students, parents, and members of the economic sector (who are potential resources) cannot make an informed decision about whether or not to participate without a good understanding of the program's goals, concepts, and structure. Some members of the community will be totally unfamiliar with the concept of career education and with EBCE's approach to it. Others will have heard of the concept, but may have only a vague understanding of it. The techniques discussed below to inform the community about EBCE will serve the additional purpose of soliciting its help and support in implementing the program.

Brochure

Whether information is being mailed to an interested party or literature is used to supplement a group presentation or individual contact, a brochure provides the EBCE staff with a tangible product to distribute. A brochure saves considerable time that would otherwise be spent in repetitive program descriptions and explanations. It gives an individual something to review after hearing a presentation or discussing the program with a staff member. A professional-quality brochure also lends legitimacy to the program; it gives the program an air of being established, something on which time, thought, energy, and money have already been expended. (See the Far West School brochure, "The Community Is the School," in Appendix 6 of Resource Development.)

Group Presentations

Planned presentations by one or more EBCE staff members have the advantages of enabling personal contact with a relatively large group of people at once and providing a forum for responding immediately to individual concerns and questions. Everyone in the audience benefits from the questions raised and responses given. Such presentations also permit the use of visual aids, such as tape/slide presentations, which have more immediacy than verbal descriptions.

Individual Contacts

Individual contacts enable staff members to describe the program in detail, respond to the person's specific questions, and request references to potential resources. If the individual cannot serve as a Resource Person, he or she can be asked to help in some other way: e.g., to serve on an advisory board, introduce EBCE staff members to friends and colleagues who might become resources or members of an advisory board, or explain the program to friends or colleagues whose support would help the program continue.

Media Coverage

The media are useful for reaching a broad range of people at one time. If, in the early stages of implementation, a brief newspaper article announcing and describing the program is printed, some of the people the staff will need to educate about EBCE will have had an introduction to it before any further contact is made. Radio spots are minimally effective, and it is usually harder to obtain the amount of air time that would be equivalent to a brief newspaper article without purchasing it. However, most radio stations will broadcast five-second free public service announcements, one way of simply informing students about the program's existence and how to get more information. (See Student Recruitment and Selection for further discussion of the news media in student recruitment.) Television stations also offer free public service announcement time to the community. All the media are helpful in generating interest in the program and making its name familiar to the community. It may be advantageous, however, for the program to maintain a low profile until it has some "success stories" to report. Further, the media will be more interested in covering the program when real students are doing real things with people in the community, as public interest in the story will be greater.

Posters

Posters are another useful way to familiarize the community with the name of the program and to recruit students. Posters should inform those interested in learning more about the program how to contact the staff. In its student recruitment campaigns, Far West School staff used posters to announce meetings that prospective students and their parents could attend to learn more about the program.

Bulletin Boards

Announcements and notices on bulletin boards at schools within the district help to publicize EBCE to the educational community. Teachers, counselors, and school administrators need to be reached since they will often refer students to the program whom they think will benefit from it. They must have an accurate understanding of it, however, or they may send only one type of student, such as the dropout or potential dropout. To assure an accurate understanding of the program, bulletin board announcements should always be combined with other informational techniques, such as presentations to faculty groups and distribution of a descriptive brochure.

Open House

An open house for parents and/or resources in the early months of the program's operation enables them to see the school, meet the staff and students, and see the facility. At such functions, the staff, parents, resources, and students can engage in informal, yet informative, discussions about the program, exchange ideas, and learn each others' expectations.

Involving Key Constituents

There are a number of mechanisms available to EBCE staff who seriously desire to draw upon the expertise and resources of others in the community in building a viable experience-based, individualized, career-oriented educational program.

Various members of the community will be involved directly in the program by serving as Resource Persons or involving their organizations as Resource Organizations. (See Resource Development for guidelines and strategies for recruiting resources.) They can also be involved by serving on an advisory body to the program. Whether and when your staff decides to organize an advisory body will depend on its access to potential resources in the community and its need for organized support for the program.

An advisory body consisting of representatives from key constituencies can help counteract opposition in the community. If little or no opposition is expected, and if the staff anticipates little difficulty in recruiting resources, it may decide to postpone forming such an organization until after the program has been operating for a few weeks or a term. Because Far West School was an experimental program, the staff found it necessary to enlist the help of influential key constituents to open doors for the program within the community. In implementing a developed and tested program, other EBCE staffs may not encounter the difficulties faced by the Far West School staff. Since a staff implementing an EBCE program will have to accomplish many tasks within a limited time, it should carefully consider whether the need for forming a representative advisory body is immediate or long-range. (Guidelines for forming an advisory board are given beginning on page 20.)

There are several other mechanisms for obtaining community input to the design of the program in addition to forming an advisory board. They are each discussed below.

Review of Materials and Policies

Resources and key constituents can be asked to review materials and policies to provide the EBCE staff with their comments, criticisms, and suggestions. Far West School staff, for example, asked resources to review project planning packages and solicited their help in devising package goals. This was done both through the mail and by telephone.

Newsletter

The school newsletter (see Resource Development for further discussion of the newsletter to resources and parents) should include an invitation to parents and resources to contact the staff about comments, suggestions, questions, criticisms, or problems. Whenever a comment or suggestion is made or a problem raised, it can be aired in the newsletter to obtain as wide a response as possible.

Program Evaluation

Parents and resources should be included in the program evaluation process. If time and staffing permit, a representative sample can be interviewed in person or by telephone. If not, questionnaires can be mailed soliciting parent and resource responses to questions about the program's operations, policies, successes, and problems.

Informal Contact

The staff should maintain regular, informal contact with parents and resources. Telephone calls, visits to parents' homes and to resource sites, open houses, and conferences with parents and resources at the school will provide the staff with a constant flow of information about the success and effectiveness of the program from the parents' and resources' viewpoint. Issues, problems, and comments should be recorded and discussed among the staff.

Forming an Advisory Board

If the staff anticipates problems in recruiting resources or eliciting community support, it should consider putting together an advisory board as early as possible. Otherwise, you might postpone formation of an advisory board until after the program has been in operation long enough to enable student and parent groups to form and select representatives to sit on the board. Whenever the board is formed, the most critical task is initial selection of the members. The board should be well balanced and represent those sectors of the community upon whose support the program will depend: business, education, government, social service, and labor. There is a danger that hasty selection of board members may result in an initial imbalance of representation among the various constituencies in the community; this imbalance may be difficult to correct, as it is much easier to add a member to the board than to remove one.

The staff needs to decide early how large the board should be so that decisions about the numbers of representatives from each sector of the community can be made while actual recruitment and selection is taking place. If, for example, the strongest opposition is anticipated from labor, the total number of labor representatives for the board can be selected very early in the board's formation. Since student and parent representatives cannot be selected before the program is underway, those members of the board can be selected last.

Selection should be based on the following criteria:

1. credibility with those the member is supposed to represent;
2. ability to communicate with other members of the community;
3. approval and support of the goals and concepts of EBCE; and
4. ability to open doors to decision-makers in businesses, unions, community organizations, educational institutions, or governmental organizations and agencies.

The final step in the formation of the board is the adoption of its charter. An advisory board can serve several purposes:

- The board can help recruit resources within the community.
- It can provide general public relations assistance to the EBCE staff and help counteract opposition through personal contacts and discussions with influential individuals and groups.
- It can help to maintain the operational integrity of the program by reviewing program policies, procedures, and outcomes for consistency with EBCE philosophy and goals.
- It can advise staff about suggested policy or procedural changes.
- It can review and help improve program materials such as project planning packages.

The purpose of the board will change as the program is implemented and in operation. Initially, the board's main role will be to open doors within the community, educate represented constituencies about EBCE, and help recruit resources. Later the board will be familiar enough with the program and will have sufficient time to observe and make recommendations about policies and procedures.

When the purposes of the board have been determined, how these purposes are to be met must next be decided. If the board is needed to fulfill certain functions while it is still being formed (when all the members have not been selected and a charter has not yet been adopted), it may be necessary to organize those members already selected into an interim board. This was done at Far West School, since the staff needed help gaining access to the business/economic sector of the community and in recruiting large organizations for student use. For this reason, the interim board consisted mostly of representatives from the business community, with a representative from the local school district, from a local governmental organization (the Department of Parks and Recreation), and from labor. A draft charter for the board was prepared by Far West staff and then discussed, revised, and adopted by the interim board. After the charter was adopted, the membership was balanced by the addition of ten members, including parents, students, and Resource Persons, all selected with increased efforts to gain a better balance of women and minority representatives.

Early meetings of the board will be concerned primarily with discussions to provide the members with a good understanding of EBCE, and to plan and report progress on tasks with which the EBCE staff seek help. It is advisable to promote early discussion of the characteristics distinguishing an advisory board from a governing board, since governing or policy-making powers will no doubt reside in the district's board of education.

Relationships with Organized Labor and Professional Associations

The purpose of developing relationships with unions and professional and business associations is to ensure their direct and active involvement in the EBCE instructional system. Their involvement should be sought as early as possible, whether the staff is developing the total program or an individual resource site, to ensure wholehearted support. Any of the key constituencies may feel their participation is not really desired if it is not requested early.

The involvement of unions and professional associations enables students to explore the total spectrum of work and work-related experiences associated with various careers. When exploring those careers which involve membership in unions, students should investigate how unions affect the employees and employers. Similarly, when employers belong to associations with those engaged in similar endeavors, the EBCE students should be able to explore those associations. Additionally, in investigating careers in which there are competing employee organizations, the student should have opportunities to gain an understanding of each. For example, a student exploration of a teaching career should provide an understanding of both the American Federation of Teachers and the National Education Association.

Involving unions may be somewhat more difficult if union leadership feels that organized labor has not been included in the formulation of the program. At Far West School, initial union involvement occurred with a specific union local representing workers at one of the program's Resource Organizations. Additional involvement was needed. To accomplish this, the Central Labor Council was asked to name a liaison person who could make other union contacts to open doors for EBCE students. For example, he arranged for students to observe a day-long meeting of the Committee on Political Education (COPE), he helped recruit a leading labor lawyer to serve as a Resource Person, and he made contacts with representatives from the State Labor Federation. The labor liaison person also met with students and discussed current strikes, union tactics, and union involvement in support of candidates for election. He even permitted tape-recording of his remarks so that other students could listen to them.

An honest, straightforward approach is essential whether the contact is with a specific union local, the Central Labor Council, the Building Trades Council, or the State Labor Federation. Stress that their participation is needed to ensure that students begin to understand the major organizational features of unions, such as the roles of business agents, trustees, secretary-treasurers, hiring halls, grievance procedures, shop stewards, and collective bargaining.

The involvement of unions in each EBCE community may also pose unique problems which will vary according to local conditions. For example, a school system in which employees are non-union may find that union participation in EBCE will be delayed pending the completion of good-faith discussion with school management about its attitudes toward union organizing efforts. However, such a situation can contribute to student understanding of the real world of union tactics and principles.

Far West School also benefited from active participation by representatives of business associations such as the local grocers' association and the nurses' association. In some cases, this involvement followed a student contact with a business or institution that was a member of the association. In other cases, the association was the initial link to EBCE participation by their members. Developing a general climate of cooperation among business and professional associations, as well as labor organizations, can greatly expand the program's actual and potential resources.

4. Student Recruitment and Selection

Student Recruitment and Selection

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January 1976

Experience-Based Career Education Program
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This handbook was created by the FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT under contract to the National Institute of Education (NIE). The opinions expressed here do not necessarily reflect the opinion of NIE nor endorsement by any other government agency.

Far West Laboratory was established through a Joint Powers Agreement in February, 1966. Signatories, as of January, 1976, include the Regents of the University of California; the California State Board of Education; the Trustees of the California University and State Colleges; the Board of Education of the San Francisco Unified School District; the Regents of the University of Nevada; the Nevada State Board of Education; the Board of Regents of the University of Utah; and the Utah State Board of Education.

The Laboratory's mission is to carry out surveys, research, development, and demonstrations in education and to disseminate information derived from such activities; accompanying programs of teacher, administrator, and parent education are also a focus of the Laboratory's work. Programs conducted by the Laboratory are intended to offer a clear and firm prospect of being implemented by schools and other educational agencies. In the course of these efforts, the aim is to assure that the evaluated outcomes of research and development are presented effectively to schools and other educational agencies.

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Table of Contents

Page

INTRODUCTION 1

PLANNING RECRUITMENT AND SELECTION 1

Identifying the Target Population 2
Establishing Eligibility Requirements 3
Specifying Selection Procedures 5
Determining Numbers Needed 6
Planning the Recruitment Campaign 8

METHODS OF RECRUITMENT 10

Posters 10
Public Service Announcements 11
Newspaper Articles 11
Presentations at Junior or Senior High Schools 11
Presentations at the EBCE Site 13
Peer Recruitment 14

METHODS OF SELECTION 15

APPENDICES

1 - Sample Radio Spot 19
2 - Oakland Tribune Article About EBCE 21
3 - Postcard Announcement of Presentations 23
4 - Application for Admission 25

List of Tables

Page

Table 1: Construction of Selection Quotas for an EBCE Program of 50 Students Using Random- and Interview-Selection Methods; Based on Recruitment and Enrollment History of Far West School, Oakland, California 7

Table 2: Distribution of Applicants and Selection Quotas by Grade Level: Far West School, 1974 16

Introduction

Most public high school faculty members are used to having students simply appear in class on opening day; few have had to engage in campaigns to recruit them. Once your Experience-Based Career Education (EBCE) program has become known in your community, you may well be faced with more applications than you can handle. But in the beginning, you will have to get the word out that the program even exists. Then, as a new program with limited staff and a pool of resources just beginning to be developed, you will not be able to take all students who want to enroll. You will need to decide in advance on fair and reasonable procedures for selecting students from among those who apply. The purpose of this handbook is to help you anticipate some potential problem areas in recruiting and selecting students and develop an effective plan for dealing with them.

Planning Recruitment and Selection

The goal of your student recruitment and selection efforts will be to obtain an EBCE student body that satisfies the guidelines established by district administrators and program staff. Recruitment should be designed to attract a sufficient number of informed, qualified applicants to enable you to select a student body with desired characteristics across such variables as sex, ethnicity, and grade level.

Achieving this goal requires that several preliminary planning steps be accomplished. The first is to determine what kind of student body you want.

Identifying the Target Population

The Far West Laboratory EBCE model was designed to accommodate a broad range of student interests, abilities, and backgrounds. The pilot operation of the program at Far West School (FWS)* was targeted at a cross-section of senior high school students in terms of past performance, future plans, ethnic group, sex, and socio-economic background. We found that all kinds of students (though not every student) could profit from an experience-based, career-oriented, student-centered curriculum. We found further that a diverse student body confers important educational benefits through informal exchange among peers.

A district may, however, decide to implement an EBCE program to serve the needs of a particular academic or socio-economic group. Such decisions should be carefully considered in terms of their effect on program resources. A few examples will help to illustrate the kinds of trade-offs that should be weighed.

Deciding on Grade Levels. Sophomores generally have more requirements still to meet than juniors, and juniors more than seniors. Therefore, if you are beginning your program with all three grade levels, you are likely to have more required subject areas to cover, and thus will need a larger pool of resources in place. It may be more feasible to begin operations with seniors and gradually add lower grade levels as the resource pool is expanded. On the other hand, returning students are an advantage to the program in maintaining continuity and orienting new students. If the program is limited to seniors in the first year, there will be no veteran students the next year. We recommend that at least a few students from lower grade levels be included as early as possible.

Deciding on Previous Performance Restrictions. Limiting the program to dropouts, potential dropouts, or students with significant performance or behavior problems may severely affect the staff's ability to recruit employer/community resources. Far West School staff consistently found its diverse student body a strong selling point in recruiting resources. Further, students

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* The Far West Laboratory's EBCE model was developed and tested at Far West School in Oakland, California. Throughout this and other handbooks, the experiences of FWS staff and students are used to illustrate key points.

with severe basic skills deficiencies or behavior problems create heavy demands on staff for supplementary instruction and counseling. A Learning Coordinator (LC) can serve 20 to 30 students if he has a good cross-section, including some who can work almost independently; otherwise, 15 may prove a taxing load. On the other hand, limiting the program to the high-achieving or college-bound student denies its benefits to a significant segment of students and opens it to attack from other educational programs competing for funds. Any program can succeed with the best students, it will be claimed; and other faculty will resent having their best students stolen away from them.

Other decisions about which segments of the student community the program will serve, immediately and in the long term, should be similarly weighed. Whatever student body composition is sought, it should be defined at the outset. These decisions will affect not only the establishment of selection criteria, but the entire student recruitment strategy -- not to mention resource needs and internal staffing plans.

Establishing Eligibility Requirements

Questions raised above about the target population affect the overall composition of the student body. Decisions about eligibility requirements affect the individual applicant. Above all, they must be fair and justifiable on rational grounds. It is one thing to say, "You are not eligible because you do not reside within the district" or "because you are a sophomore and we do not have the resources yet to help you meet your biology and world studies requirements." It is another to say, "You are not eligible because you failed to score at the eighth-grade level on a mathematics test" or "because your ninth-grade counselor says you lack initiative."

Adopters of the Far West Laboratory (FWL) EBCE model frequently ask what kinds of students succeed in the program in hopes of establishing some screening criteria. Findings to date are of little help. We know that some students do well -- that is, they complete more projects, spend more time in the community, and earn more credits -- and some do not. Unfortunately, student success by these criteria does not correlate highly with easily identifiable characteristics such as test scores, grade-point average, age, sex, reasons for applying, or future plans. The highest correlation found to date is that students from unbroken families do "better" than those from divided families. Such information is of no help in establishing screening criteria. It has also been found that students who have been in the program for a term or a year perform better than those who are new to the program. But again, knowing this helps little in setting eligibility requirements for new students.

The primary purpose of establishing eligibility requirements should be to serve the best interests of the students, given the staff and other resources available. Recognizing that students and their parents know more about students' needs and performance potential, we have found that this purpose is best served not by narrowing selection criteria, but by providing the interested parties with as much information as possible so that they can make an informed decision about whether EBCE will meet the students' needs.

The secondary purpose in establishing eligibility requirements should be to serve the best interests of the program. This is a legitimate concern. At Far West School, for example, applicants' standing could not be more than a semester behind the normal level for their years in school; for example, a student who had spent a year in the tenth grade and a year in the eleventh grade had to be close to senior standing in terms of units earned. As a new program, Far West had to worry about building its image as a rigorous educational institution, not a "giveaway" school. Even if a student entered well behind his classmates, it was found, parents often applied considerable pressure to graduate the student on time -- whether he or she had earned the diploma or not. The above eligibility requirement was established only to alleviate such pressure, not because the program cannot work for students with poor performance records.* As the program establishes its academic reputation, such a requirement may be dropped.

Assessing a student's potential for success in a self-directed, experience-based educational program is bound to be a difficult, highly subjective, and time-consuming proposition. Staff time may be more judiciously spent in providing information to prospective students and their parents so that they can make an informed decision about the match between EBCE and the students' needs and abilities. Qualification criteria can then be minimal. (Let the clients select the program rather than the other way around.)

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* In fact, due to difficulty obtaining transcripts in time, several students well behind in units were admitted to Far West. When the errors were detected, the students were allowed to remain, but their parents were contacted immediately to discuss realistic graduation plans. All eventually graduated.

Obviously, eligibility requirements and selection procedures must be settled before student recruitment begins so that prospective applicants can be informed of them.

Specifying Selection Procedures

Depending on the eligibility requirements established, selection procedures may or may not be designed to screen applicants in terms of their potential for success in EBCE. For example, in its first year Far West School included a pre-selection interview by staff of all applicants. This interview had two purposes: to provide students with sufficient information about the program to decide whether they really wanted to attend; and to enable FWS staff to identify and eliminate from consideration any students who were judged to have emotional or communications impediments so severe as to prevent their profiting from the EBCE learning process. Two principal problems were encountered with this procedure: (1) interviews consumed an excessive amount of precious staff time and (2) it was difficult for staff members to agree on criteria by which prospective applicants should be disqualified. Further, since the intent was not to select especially well-qualified applicants, but only to eliminate those obviously unqualified, further selection procedures were necessary. The interviews were soon abandoned. In their place were substituted a series of presentations at the school where prospective applicants and their parents could meet staff, tour the EBCE facility, and learn more about the program, followed by a random draw (in the form of a public lottery) among all eligible applicants.*

Over time, a selection problem that may emerge is that of sibling applicants. Far West School policy was simply to accept any eligible applicant who was the brother or sister of either a selectee or a current FWS student. It was felt that to do otherwise might cause sibling jealousy and lose EBCE the much-needed support of parents.

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* In rare instances, students with severe learning or emotional disabilities that might have been detected and screened out by an interview were enrolled at FWS. Through counseling sessions with parents during the early weeks of the term they were usually directed to other programs better suiting their needs.

Student selection methods are discussed more completely beginning on page 15.

Determining Numbers Needed

Goals for numbers of students to be initially enrolled, and the desired rate of growth, will probably be decided by the district administration. In order to meet and maintain the target enrollment, a larger number of students must be selected into the program, for no matter how skillful your recruitment presentations (or effective your interviews), some students will change their minds at the last minute and not enroll, and others will drop from the program during the orientation period. Obviously, this attrition will be different if you screen during selection than if you use random selection. In either case, the number selected should be substantially larger than the target enrollment depending upon both the method of selection and time of recruitment. If you are worried about the possibility of selecting and possibly enrolling more students than you can handle, you can first fill your target figure, then select additional students as necessary to a waiting list. Students in the second group would then be enrolled only as attrition occurs.

Based on three years' experience at FWS, Table 1 offers some estimates of attrition levels which might be expected following the selection of students in the spring for enrollment in the fall. Estimates are provided both for random selection and selection through screening interviews. They were derived from FWS experience in an urban area (Oakland) where a large number of families move in and out of the city each year. Projected attrition of selectees over the summer should be less for districts in smaller cities or rural areas.

Table 1

Construction of Selection Quotas for an EBCE Program of 50 Students Using Random- and Interview-Selection Methods Based on Recruitment and Enrollment History of Far West School, Oakland, California

ITEM	RANDOM SELECTION METHOD	INTERVIEW SELECTION METHOD
Average Enrollment During School Year	50	50
Expected End-of-Year Enrollment	47	49
Expected Number of Drops During Year	8	3
Expected Number of Transfers During Orientation	10	6
Expected Number of Selectees Not Showing for Registration	35	7
Quota Required for Selection	100	65
Percentage Excess of Selection Above Enrollment	100	30

Planning the Recruitment Campaign

Once the target population, selection procedures, and number to be selected are decided, you are ready to plan your recruitment campaign. There are essentially two types of recruitment: one seeking students from the entire community; the other limiting eligibility to students from a single school. The latter method consists mainly of securing cooperation from the school's administrators and teachers, then getting the recruitment information out to individuals and groups of students. This handbook concentrates on the more difficult city-wide recruitment.

Whichever situation you are faced with, your plan for recruiting students should answer three basic questions:

- What needs to be done?
- Who is going to do it?
- When will it be completed?

You will want all students within the designated recruitment area to have a chance to hear about EBCE. In addition to making presentations at schools where prospective EBCE students attend, you may want to display posters in neighborhood areas popular to students and parents, run public service announcements on local radio and television stations, submit a press release to your local newspaper, and hold information sessions or an open house at the EBCE site. (See the next section for a description of these activities.)

Each of these activities requires that you plan and carry out a sequence of tasks: getting clearance from administrators at schools in which you intend to make presentations; developing materials such as application forms, posters, or flyers; contacting radio and television stations and newspapers, and, if necessary, writing copy for them; and so on. Details, such as how many posters must be printed, how you intend to keep a record of students who phone in after hearing about EBCE on the radio, and who will answer the phone* must be decided. Seemingly trivial tasks become important if they are neglected.

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* FWS temporarily employed an answering service for calls coming in after hours and on weekends.

Once each of the tasks has been identified, EBCE staff members should be assigned specific responsibilities, and a realistic schedule for completion of tasks should be developed. The schedule for each task should include progress checkpoints; for example: 50 applications received by May 15, or ten junior high school presentations made by April 30, or presentation dates set for all high schools by April 15. Your plan should include a method of devising and implementing alternative actions should slippage be detected. Careful thought must be given to assure that the recruitment campaign as a whole is feasible and that no staff member is overloaded.

The overall timing of the recruitment campaign is very important. If your concern is fall enrollment, then recruitment and selection should occur in the spring. This means locating students some five months before enrolling them (leading to considerable summer attrition), but the alternative is to recruit during the summer when students are difficult to contact. Recruitment for the spring term is easier because the time between recruitment in late winter and enrollment the following spring is much shorter.

Far West staff found the largest source of applicants to be the junior high schools. Eighth- or ninth-grade students about to enter high school are already confronted with changing schools and may be more receptive to an educational alternative than senior high school students who would have to interrupt their programs and perhaps leave their friends to transfer into EBCE. Thus, while the need for resources increases (see page 2), the problems of student recruitment are lessened if the program accepts students in the lowest high school grade level.

Methods of Recruitment

Your recruitment methods should give every eligible student an opportunity to learn about EBCE and should provide interested students and their parents with sufficient information to make informed decisions about applying for admission. The key, then, is to get the word out. To do this, you should plan to take all or some of the following actions. There are, basically, two levels of information to be communicated. The first (through posters, television or radio spots, newspapers, and press releases) simply tells people where, how, and when to find out more about EBCE. The other -- presentations at schools -- offers the kind of in-depth explanation of EBCE that prospective students will want before deciding whether to apply.

Posters

Displaying posters at schools and other places in the community where students congregate is a useful way of announcing where, how, and when additional information about the program can be obtained. They should be posted well in advance of the presentation. It can be useful to include a phrase or two that arouses the student's curiosity about EBCE. An example might be: "How would you like to learn about physiology from a doctor, flying from a pilot, math from an accountant?" Be sure to use examples of resources who have already volunteered to work with your students.

Posters in storefronts or on employee bulletin boards can be used to familiarize parents of potential applicants about the existence of the alternative program. Thus informed, they may be more likely to attend a presentation at the school site.

Public Service Announcements

Local radio and television stations will provide free time to make an announcement about public school programs such as EBCE. Generally, these "spots" last 15 to 30 seconds, and are played at the station's convenience for as long as a month. The station rotates the time of the announcement so that the spot is not heard at the same time on consecutive days.

While radio stations won't charge you a fee for broadcasting these spots, you will want to consider the time it takes your staff to arrange for the announcements, then write and deliver the copy to stations. Appendix 1 is an actual public service announcement used by Far West School. It may be useful to you in writing your own.

Newspaper Articles

Most city newspapers have either a youth or education section that will be interested in helping you get word about EBCE to the community. They may want to interview someone on your staff and prepare an article, or they may simply print a press release you have written. Coverage of this type should not be premature. Your article will have more impact if you are able to tell the community that your school is in full swing, rather than about where you hope to be in six months. Appendix 2 is an article on FWS written by an Oakland Tribune staff writer.

Presentations at Junior or Senior High Schools

Presentations can take one of three forms: speaking to an all-school assembly; speaking to a series of individual classes; or speaking to a group of students who indicated interest in EBCE by signing up for the presentation. Speaking to a large group has the obvious advantage of saving time, which may be very valuable to you during recruitment; on the other hand, addressing a class or a small group of prospective applicants enables you to establish a rapport with students that is hard to attain in an auditorium. Speaking to a series of specific classes (e.g., American history and biology) which cover the group of prospective students (e.g., juniors and sophomores) takes considerable time and energy; however, it avoids the bias or screening inherent in asking counselors to refer students to a presentation. Weighing such trade-offs will help you decide which approach to take. Remember, though, that the school administrator must approve your request, and may even tell you how large your audience can be and where it will be located.

In planning presentations, keep in mind the obvious fact that EBCE represents a fairly radical departure from conventional schooling. Some of the features that sound most exciting may seem the least plausible, so be prepared to deal head-on with questions your listeners will be anxious about, from "structure" to credit assignment. Brief answers will suffice, so long as they do not hedge and are to the point. The following are some typical questions, and answers you may consider giving.

- Question: How does EBCE differ from vocational education?

  Answer: First, EBCE is not the same as job training. Students do not primarily learn tasks associated with one job at one site. Instead, they explore a broad range of careers to learn firsthand about a variety of options, by finding out what people actually do in their daily work and how they feel about what they do. Second, this exploration is fully integrated with their academic studies, so that while investigating careers and working with adults, students are also acquiring a comprehensive secondary education.

- Question: What kinds of students go to EBCE?

  Answer: EBCE is intended for all students who can profit from self-directed, experience-based learning. This includes: the student who has only vague notions of the "real world" and would like to explore career options through direct experience; the student who wants to see how book theory is applied in daily life by studying traditional subjects (like biology or American government) at a variety of community sites; the college-bound student who wants to explore a tentative career choice before setting out on a course of study; and the student who wants information and know-how needed to pursue a career interest, or to acquire some entry-level skills. EBCE is not for students who are unwilling to make decisions, plan their activities, and accept responsibility for their own education.

- Question: How can I learn anything if I don't go to classes?

  Answer: While booklearning is essential, EBCE does not attempt to duplicate the kind of learning that takes place in most classrooms. It offers an alternative, in two major ways: (1) it allows you to test academic theories through direct experience, by seeing how concepts and principles are applied by the people who use them in everyday situations; and (2) it allows you to integrate learning in ways not possible in a classroom. To illustrate, a student who develops a project in American government can learn a great deal about power relations, citizens' rights, and current political issues by working at the city manager's office, attending trials and city council meetings, and interviewing lobbyists and lawyers. In the course of learning about city government, the student is also learning what careers in the field are really like. These activities are supplemented at the EBCE site by discussions with your Learning Coordinator, meetings with students working on similar projects, tutorials, and reading.

Hopefully, these few questions will impress upon you the need not only to have thought through the EBCE concept and its underlying assumptions, but also to be totally familiar with your individual program. You will find that students ask very specific questions about school regulations and procedures. You will encounter such questions as:

- What are the school hours?
- Do you pay for transportation to and from resource sites?
- How should we dress for school?
- What do we do for lunch?
- Can we try out for any school sports?

Obviously, questions of this nature cannot be answered in this handbook. They will have to be dealt with by your staff prior to making any presentations.

Presentations at the EBCE Site

You will also find it useful to hold information sessions at your site. Some students will have missed the presentation at their home school. Others may want their parents to hear about EBCE, meet its staff, and see its facilities. And no matter how good a job you did of explaining your program at their home high school, many prospective students will feel the need to touch base with you to make sure they understand what the whole thing is about. The presentation can be more informal and relaxed than those given at the high schools because you won't have the same time constraints that many schools impose. Here you can give students a chance to get to know the staff and even talk to other interested students. If parents are to be invited, these sessions should be scheduled in the evening or on weekends. They should begin with a well-planned but brief presentation, and then be opened to audience questions. Appendix 3 is a copy of a postcard used at FWS to inform students and parents of scheduled presentations.

Remember that the program needs to be explained, not sold; or rather, let the program sell itself. A good rule to remember when making presentations is to just tell it like it is. There is some tendency to feel that if you don't interest everyone in the audience to enroll in EBCE, you haven't given a good presentation. On the contrary, a student may decide EBCE is not for him because the presentation was good and gave him enough information to conclude that the program was not what he had in mind.

Peer Recruitment

It is interesting to note that the greatest number of applicants to Far West School found out about the EBCE program through friends. For your first year of operation, however, you will have to rely on the methods mentioned above for informing students-at-large about EBCE. Subsequent recruitment efforts will be greatly simplified once you have a student body that is eager to let friends know about the school.

You will also find, once you have students, that it is to your advantage to have them help you with formal recruitment activities. Not surprisingly, a student audience is apparently much more eager to hear about EBCE from a group of its peers, rather than from staff. That students have been the most effective proponents of EBCE in a public forum speaks well for their commitment to the program.

Methods of Selection

A successful recruitment campaign will provide you with more applicants than there are spaces available. The next step is to verify that each applicant is eligible for admission, using the criteria previously established. Some of the necessary information about a student can be obtained from the application for admission. (See Appendix 4 for the application form used by Far West School.) Other information will be available from the student's high school transcript. For example, if program entry is restricted to students living within specific areas of the city, the application provides the necessary information about residence. But if your program is only enrolling twelfth-graders, then the student's transcript must be checked to verify eligibility. Or if an entering student cannot be more than two units deficient in accumulated credit (a requirement at Far West School), then the transcript is the only source of this information. One possible option is to request such information from an official at the student's current school; however, this should only be used as a last resort in cases where transcripts cannot be located in the time available. You can quickly gain an undesirable reputation by burdening administrators outside your program with internal tasks.

The three most common methods of selecting the first group of students for an alternative program are (1) interview and selection by staff; (2) public lottery; and (3) first-come, first-served. The first two methods have been discussed briefly in earlier sections. The third method is self-explanatory. Of the three selection methods, only a random draw (or lottery) is fair and impartial to all applicants. Both staff interview selection and random-draw methods were used to select students for Far West School. Student outcomes showed that the "hand-picked" students were indisinguishable from the randomly-selected ones. In other words, staff judgment as to who would best benefit from EBCE was no better than random draw. Unless you have a reason (such as district guidelines) to avoid a lottery, this method is recommended.

If you are seeking a student body representative of the target population and intend to choose by random draw, then you should strive to recruit considerably more applicants than you will select. The more applicants you have, the more likely it is that, as a group, they are representative of the target population. Random draw can eliminate members of a small group. It is possible to stratify the applicant pool on a variable* (such as grade level, sex, or ethnicity) that you consider critical to enrollment balance. For example, at an early FWS recruitment, relatively few eleventh- and twelfth-grade applicants were received compared to those for the tenth grade. To assure representation of these grades after the random draw, the applicant pool was stratified by grade. (See Table 2.) The result was actually three lotteries, one for each grade, with the number chosen for each grade proportional to the grade's representation in the applicant pool.†

Table 2

Distribution of Applicants and Selection Quotas by Grade Level Far West School, 1974

GRADE LEVEL	APPLICANT POOL	SELECTION QUOTA
10th	186	65
11th	51	18
12th	49	17
Total	286	100

---

* It is also possible, but not recommended, to stratify on more than one variable.

† A modification that could be considered is to stratify and select a distribution across a variable as it occurs in the target population. Thus, if you receive 70% of applications from females, you could balance the student body by sex by separating the applications by sex and choosing (randomly) an equal number from each group. This does not give each applicant an equal chance of being selected.

While students not chosen in a public lottery are disappointed, they are at least convinced that their chances for selection were as good as anyone else's. It is difficult to justify (both to students and parents) rejection of students through any subjective process, no matter how well-intentioned the process used.

It is very important that the lottery process be open for observation by applicants and parents. A school district representative should also be in attendance to audit and verify the impartiality of the process.

Appendices

Appendix 1
Sample Radio Spot

There is a new high school in Oakland. It's called Far West School.

What makes Far West different from the school you're attending now? Using the entire city as your classroom, you can explore a variety of careers firsthand, and complete projects for academic credit. If you want to go into medicine, broadcasting, plumbing, law, social work, film, photography -- go to college, or not go to college -- Far West School could be the place for you.

Although enrollment is limited, all students registered in an Oakland public high school are eligible to apply. And there is no cost!

Far West is taking applications for the fall semester now. If you are interested, phone. The number is 763-0607. That's 763-0607.

Appendix 2

Oakland Tribune Article About EBCE

Career education plan draws student support

TEEN Age!

12-E Oakland Tribune Sat., Jan. 6, 1973

By [illegible]RIS G. WORSHAM
Tribune Teen Writer

"I wasn't really unhappy with Castlemont High but then I heard about Career Education High," said Patrick Osborne, a 16-year-old junior. "This school has much more meaning for me because it will provide me with the necessary preparation for going into law. I'm now working with an attorney and doing other things. Next semester, I will take some college courses pertaining to law."

"Public school was too oppressive for me," said Anne Swarth, a 16-year-old former Oakland Technical High student. "The teachers were on a big authority trip and they expected everyone to learn on the same level. I'm working with the SPCA and at one time I was interested in becoming a veterinarian."

Patrick and Anne are among 11 other Bay Area youths now attending Oakland's newest alternative school—Career Education High—which began as a pilot project last September through the cooperation of the Oakland Public Schools and the Far West Laboratory, a local educational research and development firm.

Career Education High is not a vocational educational program but an innovative educational approach that utilizes the community as a testing ground for students who are indecisive about their future occupations.

"I was uptight in public school," said Anne Miksits, a former Oakland High student. "I felt that I was forced to learn and I was not interested in the monotonous education I was getting. Here I have an opportunity to learn and I'm not being forced."

Jim Peterson, a 17-year-old former Piedmont High School student experienced disenchantment with public school. "My school wasn't really teaching me anything that I could relate to. I couldn't see taking all college preparatory courses because I didn't want to go to college and I didn't know any other alternative."

Mike Dahl spins a record at KPFA

Funded through the U.S. Office of Education, Career Education High is seeking to revive the best aspects of the old apprentice program tradition. Numerous alternatives are open to the students, 13 to 18 years of age, who can become either an auto mechanic, obtain a fully accredited high school diploma or enter college.

Students at Career Education High devote approximately two-thirds of their time working and observing in a variety of carefully selected work stations and projects with professionals in the community.

"We might take a newspaper for a textbook because one main thing is important and that is not to lose track of the outside," said Patrick.

A career as a veterinarian was Anne Swarth's goal, but she later changed her mind. "I was asked if I would like to observe an operation on a dog, but I fainted after the first incision. It was a great learning experience. Now I work at the SPCA, feeding the animals and talking people into adopting pets without a home," she said.

Mike Dahl, a 17-year-old former Oakland Technical student, works at KPFA, a Berkeley radio station. He said, "A lot of us are interested in journalism and are getting together a newspaper. Each student will have one page to work on and we'll soon put out an issue on what we've learned."

In addition to regular academic courses held in the morning, such as English, math, languages, economics, the resources in the community are the key to learning at Career Education High. "Our main learning sources are the professional people we work with. Take math for instance, we might work with mathematicians for our own individual needs."

"I'm interested in music," said Jim. "I'm working with the chief of a radio station and I plan to contact professional musicians for further help and instruction."

Anne Miksits is involved with a variety of projects and works with a forestry professor at the University of California, Berkeley, and serves as a volunteer at Creative Living Center in Oakland; Billy Mann, another former Castlemont student with a bent toward astronomy, receives instruction frm professors at Chabot Observatory and the U. C. Lawrence Hall of Science and Tony Todd, also a former Castlemont student, who wants to become a salesman, is observing printing at Color Art Press in Oakland.

Career Education High is one of four experimental schools established in the nation last year. The others are located in Philadelphia, Penn.;

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Cary Sneider (left) of U.C. Lawrence Hall of Science shows Billy Mann photo of the moon

Far West School student Anne Swarth comforts a puppy at the SPCA

Harley Pebley briefs Patrick Osborne (left) and Tony Todd on the printing process

Portland, Ore., and Charleston, W. Va., according to **Harold** Jones, director of external relations for Far West Laboratory.

"We're not competing with the Oakland Public Schools, but trying to bridge the gap between school and community. We're also trying to bridge the gap between the business and school community," he said. "We are attempting to make the students aware of careers at an early age before they are faced with a last minute choice. This program is highly motivational for students who have lost interest."

"The maximum number we want enrolled at the school is possibly 32 students," Jones continued. "We are now in the process of recruiting students and we want a cross [illegible] tion which will reflect the community of Oakland."

"We [illegible] more career oriented schools the situation of public education. The public [illegible] need to break down the [illegible] here in grading and [illegible] elective [illegible]," said Mary. "[illegible] should have more [illegible] students are [illegible] they should offer more time for different courses such as electives so that students can work at their own speed and total it up at the end of the quarter."

"The counselors are always busting kids for smoking and I only talked to my counselor once when I was in school," said Anne Swarth. "The important relationships in public schools should be [illegible] students should interact more. The whole atmosphere in school nowadays is unhappy."

"Our relationship with our staff is kind of revolutionary," said Tim. "We actually like the people here and we are on a first name basis."

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Appendix 3
Postcard Announcement of Presentations

FRONT

FAR WEST SCHOOL
360 22ND STREET
OAKLAND, CA 94612

Name ______________________________

Street ______________________________

City & State ______________________

Zip Code ____________

REVERSE

The Far West School staff invites you and your parents to attend any one of several presentations to be held at the school on the dates indicated below:

PLACE	*DATE*	*TIME*
Far West School *8th Floor* *El Dorado Bldg.* *360 22nd Street* *Oakland, Calif.*	*1.* ________________ *2.* ________________ *3.* ________________	______________ ______________ ______________

These presentations are being held in order to give high school students an opportunity to visit the Far West School facilities and learn about the alternative high school program it offers.

Appendix 4
Application for Admission

Experience-Based Career Education	APPLICATION FOR ADMISSION *Date*____________________

NAME ______________________________ SEX: M [ ] F [ ]

ADDRESS *(Number/Street)*______________________________

(City/State/Zip) ______________________________

TELEPHONE________________ DATE OF BIRTH *(Month/Day/Year)*________________

NAME OF YOUR PRESENT SCHOOL______________________________

CURRENT GRADE: *9th* [ ] *10th* [ ] *11th* [ ] *12th* [ ]

HOW DID YOU FIND OUT ABOUT EBCE?

Presentation at school [ ] *Friend (who?)*____________________

Poster at school [ ] *Poster elsewhere* [ ] *TV* [ ] *Radio* [ ] *Newspaper* [ ]

*Other (specify)*______________________________

WHAT ARE YOUR FREE TIME ACTIVITIES?____________________

WHAT ARE YOUR PLANS FOR WORK OR STUDY AFTER HIGH SCHOOL?____________________

FATHER/GUARDIAN____________________ TELEPHONE____________

ADDRESS *(If different from yours)*____________________

*(City/State/Zip)*____________________

MOTHER/GUARDIAN____________________ TELEPHONE____________

ADDRESS *(If different from yours)*____________________

*(City/State/Zip)*____________________

PARENT/GUARDIAN APPROVAL____________________ DATE ____________
(signature)

FWL-EBCE Rev.12/75

THE FAR WEST MODEL

EBCE

Experience-Based Career Education

FAR WEST LABORATORY ARCHIVES
1855 FOLSOM ST., SAN FRANCISCO, 94103

RESOURCES

5. Resource Development
6. Guide for Resource Persons
7. Package Development

FAR WEST LABORATORY ARCHIVES
1855 FOLSOM ST., SAN FRANCISCO, 94103

EXPERIENCE BASED CAREER EDUCATION

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THE FAR WEST MODEL

EBCE

Experience-Based Career Education

5. Resource Development

Resource Development

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January 1976

Experience-Based Career Education Program
FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT
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This handbook was created by the FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT under contract to the National Institute of Education (NIE). The opinions expressed here do not necessarily reflect the opinion of NIE nor endorsement by any other government agency.

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Table of Contents

Page

INTRODUCTION

- Types of Learning Resources 1
- Levels of Student Involvement with Resources 3
- Purpose and Content of the Handbook 6

RESOURCE DEVELOPMENT

- Purpose and Tasks 7
- Determining Resource Needs 7
  - Factors to Consider 7
  - Setting Initial Goals 9
  - Career Categories and Levels 11
  - Academic Needs 12
  - Student Interests 12
- Identifying Potential Resource Sites 14
  - Previously Developed Resources and Contacts 14
  - Other Sources 15
- Resource Recruitment 16
  - Determining Who Does It 17
  - Determining How 18
  - Making Initial Contact 19
  - Selecting Resources 20
- Developing Resources 22
  - Program Presentation 22
  - Roles and Responsibilities of Resources 23
  - Analyzing the Site for Learning Activities 24
  - Developing Resource Organizations 27
  - Developing Community Resources 28
- Alternative Development Procedures 29
  - Short Form Development 29
  - Student Resource Recruitment 29
- Recording Resource Responses 31
  - Resource Contact Card 31
  - Resource Guide 32

SAMPLE RESOURCE GUIDES

- Resource Person Guide 35
- Resource Organization Guide 39
- Community Resource Guide 43

Page

RESOURCE SUPPORT

Learning Coordinator Role 45
Resource Analyst Role 46
Resource Support Principles and Methods 47
Maintaining Open Communications 50

RESOURCE INFORMATION SYSTEM

Storing Information 53

  Resource Contact File 53
  Resource Log 54
  Project Planning Packages 54
  Alphabetical File 54

Revising Information 54
Using Information 55

APPENDICES

1 - Sample Telephone Recruiting Presentation 59
2 - Sample Resource Recruitment Letter 61
3 - Goals and Objectives of Resource Development 63
4 - Instructions for Writing Resource Guides 65
5 - Summary of Forms Used in the Resource Information System ... 67
6 - Handout and Brochure 97

List of Exhibits

Page

Exhibit 1: Levels of Student Involvement with Resources 5

Exhibit 2: Career Classifications 10

Exhibit 3: Letter Soliciting Information on Resource Needs from Students 13

Exhibit 4: Form Letter Accompanying Review Copy of Resource Guide 33

Exhibit 5: Forms Used in the Resource Information System 71

Introduction

The overall success of an Experience-Based Career Education (EBCE) program depends on communication, cooperation, and balance between the EBCE school site and the resource sites in the community. At resource sites, students observe and participate in the working experiences of adults. In individual and group sessions at the school site with Learning Coordinators (LCs) and other EBCE staff, they discuss, examine, evaluate, and draw additional insights from these experiences. Working with adults in the community forms the core of the student's educational program; the school site provides a place for students to share their ideas and experiences, plan individual projects that best utilize community resources, work on products that develop from their projects, and take advantage of the advice and guidance of Learning Coordinators monitoring their progress. Instructional materials and tutorial assistance are provided at the school site to enrich the student's program; yet the thrust of EBCE is outward, into the community.

Types of Learning Resources

The essence of the Far West Laboratory's EBCE model* is the personalization of a student's learning program. To provide opportunities for the kind of close involvement with adults in non-school settings that can both motivate and educate, the Far West Laboratory has developed three types of learning resources:

---

* The Far West Laboratory's EBCE model was developed and tested at Far West School (FWS) in Oakland, California. Throughout this and other handbooks, the experiences of Far West School staff and students are used to illustrate key points.

- Resource Persons (RPs) are adults from a diversity of work settings willing to share their knowledge, skills, and expertise with interested students in a one-to-one relationship. The association between RP and student is voluntary on both sides. Its scope, terms, objectives, and duration are negotiable, depending on the RP's availability and the educational needs and interests of the student. Learning activities usually occur at the RP's place of business and are directly related to his or her occupation. Ideally, the RP offers students a chance to develop and apply communications, problem-solving, and social skills, as well as learn about the career and related subjects and issues. RPs frequently provide students with opportunities to develop specific technical skills through hands-on experiences in actual or simulated work tasks. In addition to working with individual students, RPs may work with a small group of students with common interests.

- Resource Organizations (ROs) range in size from fewer than ten to more than several hundred employees. They open most or all of their operations to students. Activities at these sites typically include preplanned group briefings, tours, and observations and discussions with individual employees. Resource Organizations give students broad exposure to a total organization: the nature of the business; its relationship to the community; the kinds of jobs performed there; how particular careers interlock; the working conditions and environment; educational prerequisites for job entry; and advancement and projected availability of job opportunity in the field. Ideally, the RO also offers interested students the opportunity to work in a one-to-one relationship with willing adults in the organization.

- Community Resources (CRs) are institutions or organizations open to the public, such as museums, libraries, aquariums, parks, courts, or city council meetings. Students use them when working on projects to supplement information available from other resources. As with ROs, students may identify RPs within these Community Resources who are willing to work with them on individual projects.

Resource Persons and Resource Organizations are the key learning resources for EBCE students. They are distinguished from each other primarily by whether the commitment to participate has been made by an individual or an entire organization. Both are desired. If an individual volunteers to serve as a Resource Person for EBCE students, the program may then be able to elicit that person's aid in obtaining either an organizational commitment or other individual volunteers within the organization. If, on the other hand, an organization's management agrees to offer learning experiences for EBCE students, the program may then be able to excite employee interest in working with students. Whatever the initial terms of the relationship, EBCE seeks resources which offer students both a broad exposure to the world of work and the opportunity to work closely with knowledgeable and willing adults.

The most significant and lasting educational experiences are those involving students in a one-to-one relationship with an adult interested in the student's education. Understandably, resource recruitment will concentrate on obtaining the support and participation of a broad spectrum of such individuals. However, while searching for enthusiastic, committed individuals to work with students, an EBCE program must not overlook the benefits of RO participation. Resource Organizations expose students to the interrelated but separate activities in the operation of a business organization or public agency. Students see and come to understand the rewards and frustrations of working at highly specialized careers, perhaps dealing with a single aspect of the business, such as the billing unit. ROs provide students an excellent perspective on the hierarchies of organization.

Resource Organizations offer additional advantages for EBCE. If an RP within an RO leaves the job or decides to withdraw from the program, EBCE does not automatically lose the learning situation. The RO can help EBCE replace such losses with other volunteers doing similar or identical work who can fill the vacant RP role. Also, ROs usually conduct well-planned and ordered activities, easing EBCE staff administrative tasks. In short, if an RO withdraws its support for EBCE, the program loses not one resource, but several.

The tendency among some ROs toward highly organized activities may not always provide for an individual student's needs and interests, causing negative impressions which tend to spread rapidly among students. Also, due to administrative considerations, ROs often require a minimum number of student participants at each Orientation or Exploration, inhibiting the one-to-one contact which EBCE so strongly promotes. These problems, however, are more than offset by the advantages gained from RO participation in the program.

Levels of Student Involvement with Resources

No two resources will establish identical relationships with the program or with students. Nor does EBCE dictate length of involvement or specific activities students and resources will have. One visit and a tour may satisfy a student's needs and curiosity about one profession, while at another site he may spend literally hundreds of hours with a single person. With staff assistance and concurrence from the resources involved, each student decides when, where, with whom, and how long he will engage in an available resource activity. Within this framework, the ideal resource offers interested students three possible levels of involvement, with varying activities appropriate to each.

- Orientation. During the first visit, the resource and student become acquainted. The student explains what he* wants to learn, while the resource describes the activities in which he could involve the student. The resource also briefly explains his job; frequently he will give the student a tour of his place of work and, if appropriate, introduce the student to his co-workers. Orientations at ROs are typically pre-planned and given to small groups of students. Orientations generally last from one to nine hours, or one to three half-days.

- Exploration. Explorations are designed by the student and the resource to enable the student to acquire certain skills and knowledge related to a particular theme or topic. These activities are the core of the student's independent study or project, and take place according to a schedule developed by the student and the resource. Explorations generally range from five to ten half-days, or 10 to 40 hours.

- Investigation. If the Exploration strives for breadth, the Investigation seeks depth. The Investigation is a long-term experience in which the student acquires considerable knowledge and skill in the subject and career area of the resource. At a Resource Organization, a student may learn about the entire company by working in each of several departments, rotating after a week or two in each.

Using a college curriculum for comparison, an Orientation is similar to the process at the beginning of a semester in which a student attends many classes to determine which he wants to take. An Exploration is similar to introductory and survey courses, which give a student insight into what is available in a given field. An Investigation is comparable to an upper division course, with emphasis on intensive study in a more specialized area.

Exhibit 1 provides an overview of these three levels of student activity with resources in terms of purposes, types of activities, and time associated with each level.

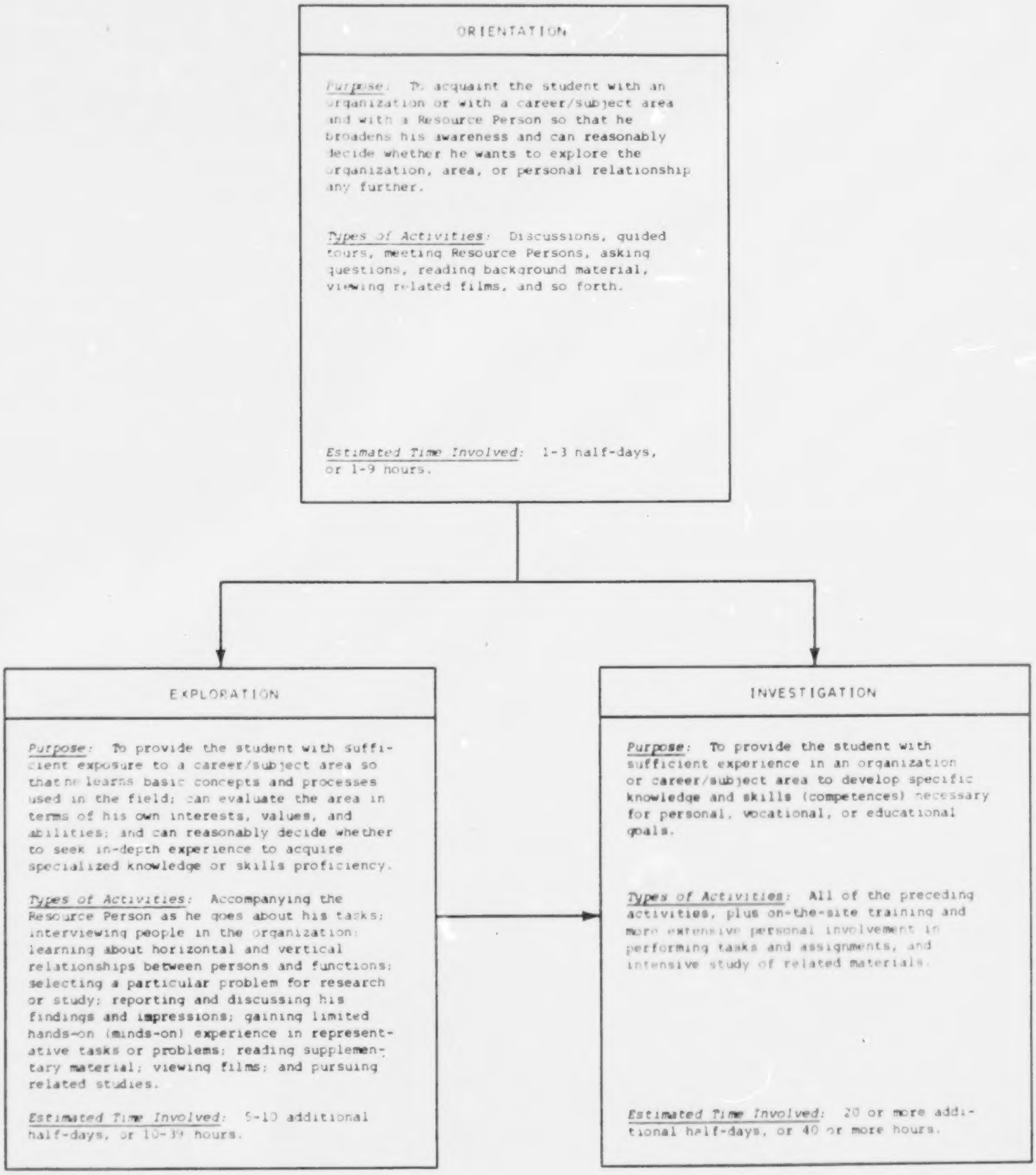
Information about RPs, ROs, and CRs and the learning activities they offer is conveyed to students and staff through Resource Guides, which are the end product of the resource development process. Guides are written for each

---

* Throughout these volumes we have generally used the masculine pronouns *he*, *him*, and *his* in instances where we obviously mean to refer to both male and female students, staff, or resources in the community. We were unable to find an alternative which was not cumbersome.

Exhibit 1

Levels of Student Involvement With Resources



ORIENTATION

Purpose: To acquaint the student with an organization or with a career/subject area and with a Resource Person so that he broadens his awareness and can reasonably decide whether he wants to explore the organization, area, or personal relationship any further.

Types of Activities: Discussions, guided tours, meeting Resource Persons, asking questions, reading background material, viewing related films, and so forth.

Estimated Time Involved: 1-3 half-days, or 1-9 hours.

EXPLORATION

Purpose: To provide the student with sufficient exposure to a career/subject area so that he learns basic concepts and processes used in the field; can evaluate the area in terms of his own interests, values, and abilities; and can reasonably decide whether to seek in-depth experience to acquire specialized knowledge or skills proficiency.

Types of Activities: Accompanying the Resource Person as he goes about his tasks; interviewing people in the organization; learning about horizontal and vertical relationships between persons and functions; selecting a particular problem for research or study; reporting and discussing his findings and impressions; gaining limited hands-on (minds-on) experience in representative tasks or problems; reading supplementary material; viewing films; and pursuing related studies.

Estimated Time Involved: 5-10 additional half-days, or 10-39 hours.

INVESTIGATION

Purpose: To provide the student with sufficient experience in an organization or career/subject area to develop specific knowledge and skills (competences) necessary for personal, vocational, or educational goals.

Types of Activities: All of the preceding activities, plus on-the-site training and more extensive personal involvement in performing tasks and assignments, and intensive study of related materials.

Estimated Time Involved: 20 or more additional half-days, or 40 or more hours.

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individual resource and outline the range of potential learning goals and activities students could undertake at the site. Students and Learning Coordinators use this information to select resources related to individual students' goals, interests, or learning needs. Once Orientation activities at a site have been completed and the student has chosen further involvement there, the Resource Guide helps the student, the resource, and the Learning Coordinator build a personalized learning project tailored to the student's needs and interests. The sequence is not necessarily a linear, one-two-three step process. A student may, for example, go from an Orientation directly to an Investigation.

Purpose and Content of the Handbook

This handbook describes the resource development and support processes used in the Far West Laboratory's EBCE model and illustrates some of the experiences of program staff to aid potential EBCE adopters in planning their own resource development efforts. The handbook assumes you are already familiar with the FWL-EBCE model, as described in the Program Overview. (See Volume I.)

The following pages discuss the major resource development tasks -- determining resource needs, identifying and contacting potential resources, and analyzing the learning potential of resource sites. Sample Resource Guides for a Resource Person, a Resource Organization, and a Community Resource are presented to illustrate the kinds of learning opportunities such resources can offer. (Because the Resource Guide is the end product of resource development, it would be helpful to turn to page 35 for a moment to familiarize yourself with sample Resource Guides before proceeding further.) Needs and methods for maintaining the pool of volunteer resources are then outlined in the section on resource support. The section on the resource information system describes instruments and procedures for communicating adequate and up-to-date information about resources to staff and students. Finally, the appendices contain a detailed statement of the objectives of resource development and maintenance, instructions for writing Resource Guides, and copies of the instruments and forms used in resource development and support.

Resource Development

Purpose and Tasks

The resource development process should result in a pool of Resource Persons and Resource Organizations that understand the program's educational goals and are able to help students achieve them. It should also produce a varied set of resources which will meet the wide range of student needs and interests. This process rests on the successful accomplishment of three tasks: determination of resource needs; identification of potential resources; and recruitment and development of appropriate resources.

This section of the handbook discusses each task separately and includes explanations of how resource development procedures vary according to the type of resource (RP, RO, or CR).

Determining Resource Needs

Factors to Consider

Determining an EBCE program's needs for resources is an ongoing process. Decisions as to the number and kinds of resources needed are based upon both prescribed and expressed needs of the student body.

Before initial resource needs can be determined, decisions must be made about the composition of the student body to be served, both in the immediate and distant future. (For instance, sophomores may have needs which seniors do not.) The numbers of students to be accommodated and the anticipated growth rate of the student body obviously affect resource needs. Far West School staff has found, interestingly, that increases in the student body do not necessarily require proportional increases in resources. FWS began its first full year of operation with 51 Resource Persons and 23 students, approximately a two-to-one ratio. In its third year of operation, with 110 students, the program had available approximately 120 Resource Persons and 25 Resource Organizations. As the student body increases, more students share common needs and interests which can be filled by the same resources. It is not the number of resources, but the number of committed resources that counts.

A fledgling program might begin operation with 50 students and an equal number of available Resource Persons, provided the resource pool offered sufficient diversity to accommodate students' expressed interests. Students with similar needs might work with resources on a small-group or rotating basis until the pool is expanded. Students themselves can be trained to recruit and develop additional resources needed to pursue their own subject and career interests, thus building the pool for future students.

Decisions must also be made about the objectives of the program and the requirements students must meet to graduate. To guide the development of learning resources and the planning of student programs, Far West School staff developed statements of desired student learning outcomes and requirements for graduation. (See the Learning Coordination handbook.) The FWS core student outcome objectives and requirements focus on the development of knowledge and skills considered essential for independent learning and adult living -- knowledge of one's own interests, values, and abilities; knowledge of a range of possible career endeavors; knowledge of the skills of acquiring, using, and communicating information; problem-solving; decision-making; and dealing effectively with other people. Because almost all resource sites have the potential for these kinds of learning outcomes, the core objectives are useful as guideposts to refer to in analyzing the learning potential of resource sites, rather than for determining the kinds of resources needed.

In addition to identifying the core knowledge and skills areas in which student growth is desired, Far West staff also developed objectives for students to explore and expand their understanding in several areas depending upon their own needs, abilities, and interests. These elective areas -- including, for example, physical fitness, social/cultural awareness, science, mathematics, and foreign language -- overlap traditional school subjects and provide a basis for determining resource needs. A list of major subject areas offered or required by local high schools may also help ensure that the pool of resources provides opportunities for students to expand their understanding and skills in diverse areas of human knowledge and endeavor.

EBCE also seeks to provide students with a broad exposure to career opportunities and the means for exploring and developing their own career interests and potential. In determining an EBCE program's specific needs for resources, then, the following goals are central. The resource pool should:

- provide a sampling of resources which cuts across a broad range of career categories and levels;

- offer students learning activities which will enable them to acquire knowledge and skills necessary to meet local school district and EBCE graduation requirements; and

- enable students to investigate careers and subjects in which they have expressed personal interests.

Setting Initial Goals

Because resource development is a time-consuming process, it should begin even while final decisions about program goals and the composition of the student body are being settled. Given a taxonomy of career categories and some knowledge of potential student interests, the staff can meet and agree upon the number of resources initially needed in each area. For example, using the 12 American Institutes for Research career families (see Exhibit 2, page 10) the staff might decide to try to develop five Resource Persons in each category within two months. As these career categories overlap several major subject areas, an additional subject checklist is not needed. If the health field is a major area of interest among students, the staff may decide to set a higher goal for it. If biology is a required area of study, medical laboratories, veterinary hospitals, and related resources will have higher development priority than resources related to an elective area such as geology. In any case, the outcome of staff deliberations is an initial list of the general kinds and numbers of Resource Persons desired.

A large Resource Organization might satisfy the initial goal for Resource Persons in one or more of the career fields. For example, a public housing authority may provide Resource Persons in the secretarial/clerical field, the construction trades, the mechanical trades, and the public service field. Or the program may find it needs to recruit 20 individual volunteers from a variety of organizations to meet the same needs. Eventually, the program should aim to obtain Resource Persons in similar careers but in different kinds of organizations if it hopes to offer students a broad exposure to the world of work.

Exhibit 2
Career Classifications

TITLE	DESCRIPTION
I ENGINEERING, PHYSICAL SCIENCE, MATHEMATICS, ARCHITECTURE	Workers are involved in the research and application of the physical and mathematical sciences. Includes teaching, design, and development in areas concerned with inorganic matter, energy, physical measurement and relationships, production, and the like.
II MEDICAL AND BIOLOGICAL SCIENCES	Activities involved with living organisms and life processes. Provide services, explore problems, and research questions relating to all aspects of life, such as health and disease of all living things, including plants and animals.
III BUSINESS ADMINISTRATION	Includes occupations involved in the production, financial, and management aspects of commerce, banking, industry, and the military. Workers in this area typically determine policy, monitor progress, or provide other services which contribute to the ongoing operation of an organization.
IV GENERAL TEACHING AND SOCIAL SERVICE	Occupations in this group generally involve helping others through instruction, guidance, or in other ways facilitating the maintenance of people's social, physical, and intellectual well-being.
V HUMANITIES, LAW, SOCIAL AND BEHAVIORAL SCIENCES	Workers in this area are primarily interested in literature and philosophy, how human beings relate to one another, to the law, and to their social and economic environments.
VI FINE ARTS, PERFORMING ARTS	Includes workers who are involved in the arts, such as the theater, music, painting, sculpting, crafts, or dancing.
VII TECHNICAL	Includes those workers who support physical and biological scientists. May be involved in design, development, production, maintenance, testing, or research. Most often work with equipment in laboratories, computer centers, design groups, or in other technical settings.
VIII BUSINESS, SALES	Workers in this area make possible the transactions between manufacturers of products and customers who need and use those products through trade activities of various types. May be directly involved in selling or in the supervision of sellers.
IX MECHANICS, INDUSTRIAL TRADES	Includes skilled craftsmen who use tools and instruments to build, operate, and maintain machines and other types of equipment.
X CONSTRUCTION TRADES	Workers in this area are involved in all phases of building, repair, remodeling, or maintenance of buildings, bridges, roadways, or other structures.
XI BUSINESS, SECRETARIAL-CLERICAL	Assist business and industry with record keeping, communications, shipping and receiving merchandise, and operating equipment, such as office machines.
XII GENERAL COMMUNITY SERVICE, PUBLIC SERVICE	Workers in this area provide services to people in the community, such as policing the streets, putting out fires, making food and clothing, assisting in health care, transporting goods, and providing personal services, such as beauty care.

Source: American Institutes for Research. The AIR Career Guidance Program. Palo Alto, California, 1973.

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Career Categories and Levels

The staff should adopt a taxonomy of career categories which can be used to ensure a representative sampling of major kinds and different levels of careers. Far West staff initially used an alphabetical list of 22 areas of work from the Dictionary of Occupational Titles and currently uses a set of career categories developed by the American Institutes for Research (AIR) as checklists against which to assess the breadth and depth of the resource pool. (Exhibit 2 on the opposite page shows the AIR taxonomy.) The AIR categories were chosen by Far West because career guidance materials employing this taxonomy were being used by students. Before choosing a taxonomy for indexing its resource pool, the staff should look into the career families or clusters currently in use within the district, because a common system for cataloging and accessing career information is desirable.

The career taxonomy adopted or developed should enable an EBCE staff to identify whether its resource pool represents major kinds of work (such as careers in sales, trades, the sciences, the social sciences, business management, law, the arts, and agriculture) as well as levels of work (such as careers requiring a high school diploma, those requiring two or four years of post-secondary education or training, and those requiring graduate work). The taxonomy should also allow the staff to easily determine the appropriate category for new resources developed. None of the taxonomies examined, developed, or used by Far West School staff have met all of the program's needs; however, several would provide a sufficient checklist to ensure a reasonably diverse resource pool offering students broad exposure to the world of work.

When determining resource needs, the staff should also seek to obtain resources in the public and private sectors, commercial and non-profit organizations, and large and small organizations. In order to avoid trying to accomplish everything at once and doing nothing well, however, it is best to begin with an effort to obtain resources across diverse kinds of work, then periodically reassess the growing pool against other criteria to identify areas in which recruitment efforts should be concentrated.

Academic Needs

EBCE staff must also decide what academic subject areas it hopes (or needs) to help students pursue through study projects using employer/community resources. For example, allowing students to pursue elective social science credits creates a general need for Resource Persons or Organizations working in social science fields. Deciding that students should be able to earn credits in American government through projects in the community requires sufficient numbers of resources in politics, government, and related fields. The staff must also decide when it hopes (or needs) to make such resources available. For example, an EBCE program might begin operations with a student body of seniors only (who have met most of the district's specific subject requirements and need primarily elective credits) while the resource pool is expanded to offer learning opportunities in required areas of study. Or the program might begin operations on a part-time basis so that students obtain English, math, and science credits by attending traditional classes and earn elective credits through independent projects with resources, until the resource pool is gradually expanded to cover required areas of study.

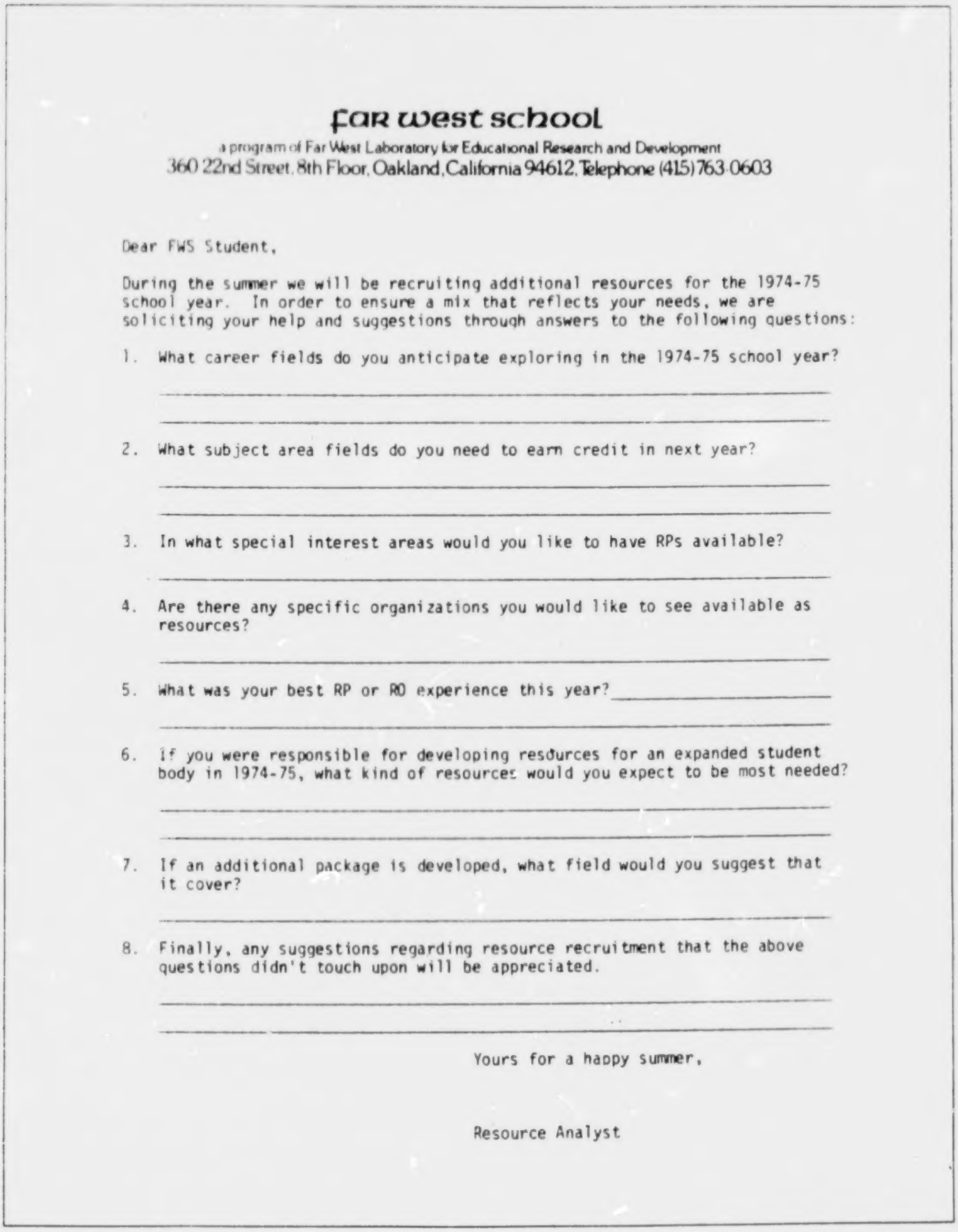
Student Interests

To the maximum extent possible, an EBCE program must endeavor to provide resources which will enable its students to pursue their own interests as well as meet requirements. Seldom are the two mutually exclusive. Student interest in required subject areas such as biology can be heightened if students can work with ecologists, veterinarians, or other Resource Persons (or Organizations) directly related to their interests in issues or careers.

If the student body composition for a beginning EBCE program has been determined, the staff might begin assessing its resource needs by polling applicants' career and subject interests, or by surveying a sample of potential applicants. For example, Far West School staff polled returning students by mail (see Exhibit 3) to discover some of their major career and subject interests. (New students' interests were listed on their FWS application.) Their responses

Exhibit 3

Letter Soliciting Information on Resource Needs From Students



far west school
a program of Far West Laboratory for Educational Research and Development
360 22nd Street, 8th Floor, Oakland, California 94612. Telephone (415) 763-0603

Dear FWS Student,

During the summer we will be recruiting additional resources for the 1974-75 school year. In order to ensure a mix that reflects your needs, we are soliciting your help and suggestions through answers to the following questions:

1. What career fields do you anticipate exploring in the 1974-75 school year?
2. What subject area fields do you need to earn credit in next year?
3. In what special interest areas would you like to have RPs available?
4. Are there any specific organizations you would like to see available as resources?
5. What was your best RP or RO experience this year?
6. If you were responsible for developing resources for an expanded student body in 1974-75, what kind of resources would you expect to be most needed?
7. If an additional package is developed, what field would you suggest that it cover?
8. Finally, any suggestions regarding resource recruitment that the above questions didn't touch upon will be appreciated.

Yours for a happy summer,

Resource Analyst

indicated they wanted to explore such diverse fields as dance, medicine, leathercrafts, military law, aviation mechanics, and small business management. While far from complete, the information provided staff with a starting point for planning resource recruitment. At the beginning of each school year, students complete the Student's Initial Planning Worksheet, which also records their interests and can be used to plan resource development. At Far West School, students continue to report their individual interests throughout the year via a Request for Resource card. (See Appendix 5 for descriptions and copies of these forms.)

Identifying Potential Resource Sites

The second major development task is to identify potential resources in the community and decide which to approach. Ideally, the first persons contacted are those most likely to be interested in the program. Developing an initial cadre of resources is hardest, as potential participants are uncertain what "participating" really means. Once an EBCE program has begun operation, it can use its existing resources and track record -- real people and concrete examples of students learning at resource sites -- to excite wider interest in the community.

Previously Developed Resources and Contacts

An obvious starting place is to identify those employer/community resources already working with the schools in some capacity. Many schools have a list of volunteers in various careers who will give classroom presentations on request. Community participants in career days offer another potential source of committed adults who might be interested in long-term, one-to-one involvement with students at their place of work. Employers providing exploratory and actual work experience opportunities for students might be interested in recognizing and expanding the learning potential inherent in such situations. Special care should be taken to ensure that such resources are thoroughly oriented to the program's goals, key assumptions, and processes, and that the differences between EBCE and work experience programs are understood.

Another, perhaps obvious, starting point is personal contacts. Anyone known to be interested in the program -- school staff, board members, spouses, and friends -- should be asked if they have acquaintances who might be interested in working with EBCE students. Each new RP developed should be asked if he or she knows others who might participate.

Thus, the initial pool of volunteers may consist only of personal contacts and resources already available to the schools; but to develop as wide a spectrum of resources as possible, or to accommodate individual student requests, the staff may frequently need to start from scratch in identifying potential resources.

Other Sources

Regardless of the social and economic differences among communities, there are common sources for identifying potential resources. For example:

1. Published Materials

   a. An obvious source of information is the telephone directory's yellow pages. In them, active members of many professions or trades are listed together.

   b. Chamber of Commerce publications list industrial parks and growth industries. Lists of individual Chamber members may also be available, as well as lists of member firms.

   c. Tourist guides are a useful source for potential site identification. They list local recreational and entertainment facilities, including cultural institutions and events.

   d. Promotional literature put out by federal, state, or local government agencies often provides information on possible resource sites.

   e. Local newspapers may have special shopping day issues in which merchants and businesses advertise themselves, detailing their services to the public.

2. Service Organizations

   The Rotary, the Lions, the Kiwanis, the Junior League, and other groups are committed to various types of community service as a prerequisite to membership in good standing. For this reason, their members are likely to listen to presentations designed to elicit their participation in EBCE.

3. Business and Labor Organizations

   Organizations such as the Chamber of Commerce, the Central Labor Council, union locals, and professional associations can be approached as possible resources and for referrals to individuals and organizations who might participate in EBCE.

4. Community Familiarization

   Those people responsible for developing an EBCE resource pool need a working knowledge of local commercial and industrial districts, their location, and available transportation. Many cities have specialized business districts: a financial district, a civic center (often including state or federal offices as well as libraries and museums), an auto repair district, and a shopping center. Once identified, these areas can be canvassed.

Using these sources -- previously developed resources, personal contacts, publications, organizations, and knowledge of the community -- a list of potential resources categoried by career area can be generated. There may be literally hundreds of organizations, public and private, large and small, from which to choose.

Resource Recruitment

To avoid excessive concentration of development efforts on a narrow range of resource types, a quota should be set for numbers of initial contacts to be made in each career or subject category desired. For example, plan to contact ten in each category and obtain their responses before contacting the next ten.

Resource recruitment should begin where the greatest success is anticipated: with those persons or organizations which have already demonstrated an interest in education and working with young people, and with those whose names were obtained through personal contacts. Canvassing employers or "walking in cold" may be effective at a later time, once EBCE is better known in the community. A time-consuming method, it should be used in developing the initial resource pool only when absolutely necessary.

The purpose of the initial contact is simply to spark sufficient interest to enable a staff member (usually the Resource Analyst*) to make an appointment (1) to discuss the program and what participation would mean for the particular organization or individual and (2) to work with the resource to identify and analyze learning activities at the site. (The differences between recruiting Resource Persons and Resource Organizations are discussed in the section on developing Resource Organizations, beginning on page 27.)

Recruitment is easier and more effective if informational materials are available to distribute to potential resources. Far West staff initially developed a brief, three-page handout titled Open Your World to Students and later produced a longer, more professional brochure called The Community Is the School. The former has a blank Resource Information Sheet attached to it with a return address printed on the reverse side so that a potential resource can simply complete the form and mail it to the school. This is the simplest and least expensive form of informational material a developing program could produce. More polished brochures and handbooks can be produced later as needed and as time and funds allow. See Appendix 6 for a copy of the three-page handout and the brochure. Either of these materials may be adapted for local use.

Determining Who Does It

The first task in deciding how to approach a potential resource is deciding who should do it. If the potential resource was identified through a personal reference, it is best to have the person making the referral also make the initial contact, either alone or in the company of an EBCE staff member. In approaching a large organization, it is helpful to have an influential member of the business community who endorses the EBCE concept (a school board member or a service club president, for example) make the initial contact and "open doors" for program staff. Depending on their own confidence and competence as "salesmen," the staff itself should be able to make most initial recruitment contacts.

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* The Resource Analyst has primary responsibility for resource recruitment, development, and support. He may have one or more Resource Developers (Learning Coordinators, other EBCE staff, or work-study students) to help him. The term "recruiter" refers to anyone who recruits a resource.

Determining How

Having decided who should make the initial contact, the method to be used is selected. The person making the contact should select the method most comfortable for him. EBCE staff who might be on unfamiliar turf and pressed for time should consider the following approaches.

Telephone. Phoning has two advantages. It provides immediate results and also limits the actual time spent in program explanation, allowing resource recruiters to spark initial interest by presenting a capsule summary of the program. (Appendix 1 is a sample introductory phone call.) Such an introduction almost invariably results in a deluge of quite specific questions, shifting the burden of the conversation from the caller to the potential resource. Answers to those questions should be brief. The primary objective of the phone call is to set up a personal interview during which EBCE can be explained in depth and detail. After several questions, it is wise, therefore, to ask the potential resource if he thinks he would like to participate in or learn more about EBCE and, if so, if he is the person who would make the decision to participate. If appropriate, suggest that a meeting be arranged between the Resource Analyst and the person in authority. At that meeting, the extent of participation and specific types of learning activities possible at the site can be explored.

Mailings. Using the mail for an initial introduction of EBCE to potential resources is occasionally necessary, but lacks the immediacy of a telephone call. In addition, mass mailings may seem impersonal, and can easily be ignored or mislaid and forgotten. Mailings serve best as follow-ups to introductory telephone conversations which establish initial rapport. (Appendix 2 is a sample recruiting letter.) Letters from influential persons endorsing the program may open doors for follow-up telephone calls or visits by EBCE staff.

Personal Visit. Initial contact through personal visits to potential resources is also effective. Obviously, the number of individuals a recruiter can readily contact in person is limited when compared with the range of contacts possible by telephone in the same amount of time. A personal presentation can, however, serve to introduce EBCE to groups such as the Lions, the Rotary, or the Junior League, or can be used by a resource recruiter when canvassing neighborhood businesses.

Making Initial Contact

EBCE staff will find that different individuals must be approached about possible participation in different ways, and that each potential resource will respond differently. The first questions people raise during initial contact provide the resource recruiter with important clues to guide the conversation. Here are some commonly-voiced questions and concerns he would be well advised to have answers to before beginning:

- Could my children participate?
- How is EBCE different from work-study programs?
- Is it a special program for dropouts?
- Is it vocational education?
- When do the students go to school?
- How much time must I spend with students?
- Do I have to grade students?
- Am I responsible for recording the students' attendance?
- Am I responsible for disciplining students?

Whatever the questions, the resource recruiter should respond directly and with candor. It helps, of course, to emphasize positive program aspects when answering such questions. If a question concerns labor union participation, for example, the recruiter should stress the importance of students learning through firsthand experience about the labor movement, how unions operate, what they do for their members, and their role in the American economic and political system. If a question concerns the difference between EBCE and vocational education, the recruiter should emphasize that EBCE serves the needs of some students by helping them clarify their career goals before committing themselves to preparation for a specific vocation. In every instance, the recruiter should stress the potential benefits of EBCE participation to the resource and to students, and avoid criticism, real or implied, of other educational approaches or programs.

The major questions in the minds of potential resources usually focus on what participation will mean for them. ("How much time will it take?" "What do I do with students?") Such questions cannot be answered before the volunteer and the Resource Analyst meet to identify potential learning activities at the site and the restrictions, if any, on student participation. (Although initial contacts may be made by individuals other than EBCE staff -- students, resources, influential friends of the program -- subsequent development meetings with the new resource should be made by the Resource Analyst or other trained personnel.) If the potential resource expresses sufficient interest to engage in further discussion, the initial contact should close, if possible, with an appointment being made for the Resource Analyst to meet with the person and any others in his organization who might be interested in learning more about EBCE.

Selecting Resources

Nearly everybody has something to offer EBCE and most are willing to share what they have. The final decision on whether a resource can provide enough of the kind of educational experiences desired by the program to warrant that resource's inclusion will be a highly subjective one. The decision will be based, in part, on the availability of other resources in the same career area. Two factors should always be considered:

1. Is the resource accessible by public transportation? At the Oakland site, a local sewage treatment plant was a potential resource site, but students going there would have to provide their own automobile transportation.
2. Are its hours compatible with those of students in the program? One computer programmer volunteering as a resource for the Oakland site did his most important work during the graveyard shift. It is also possible that a resource's job schedule will rotate on a two- or three-shift basis.

Even resources with such limited access may be included in the resource pool if they offer exceptional learning activities for students.

In the initial stages of resource recruitment, EBCE staff will not be able to be as selective as they will later on, when the resource pool has been established. At that point, these are some of the criteria that can be useful in deciding on the suitability of a potential resource:

- The student can have hands-on experience in real tasks of increasing responsibility and difficulty.
- The resource is experienced at, or has a strong interest in, working with adolescents.
- The resource has time to instruct the student and assess his progress.
- The resource is willing to discuss how his career affects his personal life, such as necessary overtime, transfers, or entertaining potential customers at home.
- It is apparent that the site is an equal-opportunity employer.
- The resource is willing to work with a slow learner. (Many resources want to work only with "quick" or "bright" students; we need to balance this with people who will help the less motivated, or less able, student.)
- The student can choose among several activities at the site.

Potential Resource Organizations can be evaluated according to:

- the number of students who can participate;
- the quantity and quality of hands-on experience possible;
- the availability of staff to instruct and review students' work on a one-to-one basis;
- whether Investigation-level activities are available and, if so, their nature;
- the variety of careers students can explore;
- the kinds of basic, life, and career development skils students can develop; and
- evidence that the organization is an equal-opportunity employer.

Developing Resources

There are no set roles for resources. An EBCE program must accommodate the needs and interests of individual resources as well as students. Every newly-recruited resource determines his or her role in the program with the Resource Analyst's help. In order to do so, however, resources must understand the underlying concepts of EBCE, its goals, and how the school operates. At the same time, EBCE staff need to identify what students can do and learn at the resource site. Thus the purpose of additional meetings with new resources is to establish the resource's role, inform him about the program, and analyze the site for learning activities. The information in this section applies to the development of all resources. Distinctions between RP, RO, and CR development are discussed on pages 27 and 28.

Program Presentation

If the Resource Analyst did not recruit the resource he is interviewing, he must probe to learn how much the person knows about EBCE and to surface any questions or reservations about participating. Such issues should be the first ones addressed.

Based upon the resource's familiarity with and understanding of EBCE, additional explanation of program goals and concepts may be necessary. Some important topics for discussion are:

1. The concept of EBCE as a student-centered, individualized, experience-based educational program which uses the community as a classroom.
2. An explanation of staff roles: what a Learning Coordinator does; how his job and that of the Resource Analyst differ; and the names and functions of other staff. (See the Administration handbook.)
3. Project planning, credit assignment, and supplementary resources available at the school. Define what a project is, what forms students will bring with them and why, and how credit is earned. (See the Learning Coordination handbook.)

The Resource Analyst should assemble and bring with him a packet of school materials and forms to use as examples in explaining the program. The resource should also be shown a copy of each project planning package in which he will eventually be listed. (If funds permit, project planning packages should be left with the resource for future reference.)

Other questions frequently raised by resources concern the make-up of the student body, the relationship of the program to the public schools, cost to the student, student selection procedures, the funding source, liability for injuries and accidents involving students, and what students will expect from them. At Far West School, these and similar questions are answered in the Guide for Resource Persons, which is given to each new resource recruited. (The guide can be easily adapted for local use.)

Roles and Responsibilities of Resources

Most resources assume they are volunteering for a very structured program in which they spend a set amount of time with students every week teaching them all the same things. Therefore the Resource Analyst should stress the individualized and flexible nature of the EBCE learning process. Resources should understand that students have a major responsibility for their own learning programs, and will need the help of the resource in planning activities appropriate to their individual interests and needs. Resources can determine how many students will work with them, when, and for how long. They can also decide whether they will evaluate their students' work.

Resources are requested to phone the Resource Analyst or the student's Learning Coordinator when students miss appointments, but they are not expected to discipline students. Rather, they are encouraged to treat students as they would an employee or colleague.

Although the ideal resource offers students choices of activities at any of the three activity levels, any willing resource should be considered for those learning experiences he can provide. For example, Far West School developed some Resource Persons willing to help students plan projects or to discuss their careers, but unable to provide learning activities at their work site. Others come to the school and conduct workshops in fields such as photography for groups of interested students. Resource Persons may also choose to serve as adult friends able to share interests in such diverse subjects as ceramics, auto racing, or fishing.

Some Resource Organizations prefer a structured sequence of activities in which the students participate according to a prearranged time schedule. Others work with students on a less formal basis, with the sequence and schedule of activities arranged with the student's Learning Coordinator or the Resource Analyst to suit the convenience of both the student and the employees with whom he will work. Variations of structured and unstructured programs are almost as numerous as there are resources. The important point to stress is that a program can be devised according to the needs, interests, and constraints of the participating organization or individual.

Analyzing the Site for Learning Activities

Begin the site analysis by asking the resource to explain his job. Questions should start the resource thinking about his work, the problems he solves and procedures he follows, to help him see how a student could fit into his routines. Below are questions covering the most important concerns to be addressed. (Item 6 in Appendix 5 is a copy of a Resource Site Analysis Worksheet, which may be used both to take notes and to check the completeness of the interview.)

What are the resource's regular duties? Could the student accompany the Resource Person on rounds he makes? Could the student participate in any of the routines? Are they of educational value to observe or do? For how long?

What can a student do at the site? Are there tasks he can come in and handle from the outset? Are there tasks he could perform with prerequisite skills such as typing, drawing, or math skills? What tasks could a student perform after having them explained to him?

What can a student observe at the site? If the student cannot do what the resource does, can he watch while it is done? At the same time could the resource explain what he is doing and why?

What can the resource discuss with students? Can he talk about his career? His hobbies? How much of what he does professionally can be put into terms that will be useful and meaningful to students? What outside activities would he enjoy discussing with students?

Are there some academic prerequisites for participant students? What basic skills competence will students need? Is the resource willing to teach students such skills and, if so, to what extent?

What is the resource's career background? How many years has he done this type of work and in what settings? How did he enter the career? What is his own formal educational background? How much of it does he use on the job? (Use discretion regarding discussion of a person's formal education. There are many self-made men and women in business who could be sensitive to such questions.)

What fellow employees could the student meet with to discuss work and careers? Is there someone whose work relates to that of the resource, yet is different in specific details? Would it help the student to see the flow of work from one person to another within the organizational unit?

What equipment can the student learn to use? Within legal constraints regulating equipment minors may operate, what could the resource teach the student to operate? It could be something as simple as an electric drill or a duplicating machine.

Does the resource attend any meetings as part of his work responsibilities? If so, could a student benefit from attending any of them? He could learn, for example, how an architectural partnership decides what design jobs it will undertake as well as how to draw plans to meet client needs.

What professional associations is the resource a member of? Does the resource belong to any unions or advisory or other groups? Do they hold regular meetings? Are meetings open to the public? Could a student accompany him? For example, FWS discovered that a Resource Person was a member of the American Association for the Advancement of Science and could arrange for EBCE students to attend the association's regional convention in San Francisco. The students worked as session aides in exchange for registration fees and were permitted to attend all conferences.

How much time can the resource spend with students? Does the resource realize that some students may want to spend as many as 100 hours over several weeks learning about his career and developing related skills? How often will he want a student visiting his site? Are some times during the work day or week better than others?

Besides learning about the resource's work, his interests, his formal education, his experience, and the extent to which he can participate in the program, the Resource Analyst must also find out why he is volunteering to work with students and how he will relate to them. The Resource Analyst should ask himself the following questions:

- What kind of student might work best with the resource?
- What personality conflicts might arise between the resource and students?
- What benefits does the resource expect from participating?

Identification of the resource's personal biases can provide clues to understanding what will happen when a student visits him.

The Resource Analyst should end the interview with a brief reminder of the incentives for and benefits associated with being an EBCE resource. The following are some possible points to make:

1. The resource helps provide EBCE students with a better, fuller educational opportunity than students who never experience the world of work until they become job seekers.

2. High school students bring with them to any job site their unique interests and perspectives. These serve to keep the resource and others working with them in touch with young attitudes and ideas.

3. The presence of high school students at a business can stimulate employees to better performance of their jobs. After all, in a very real sense they are teachers and have to think about such things as how to describe and perform their jobs. One of the best ways to sharpen skills and renew interest in a subject is to teach it to another person.

4. Students can, in many instances, help the resource with what he is doing in exchange for the learning opportunities provided. (Stress, however, that the student is only to be engaged in actual tasks which do offer educational value.)

5. By participating in EBCE, any resource is plainly creating good public relations through community service.

Resources should be warned that they may not see a student for some time, since activities with resources are student-initiated according to their educational needs and interests. Remind the resource to keep in touch with the school and to report any changes in his status which will affect his work with students. Resources should also be invited to visit the school site at their convenience to meet other staff and learn more about the program.

Developing Resource Organizations

There are few basic differences between development of Resource Persons and Resource Organizations. The major differences are the time and protocol involved. With Resource Organizations, a more formal approach and atmosphere are frequently necessary. Since most or all of the organization must be analyzed for learning activities, development takes considerably more time. The clearest way to illustrate the reason for these differences is to describe RO development step by step.

Initial Contact. Often the Director of Operations or influential board members make initial contact with top-level management personnel of the prospective Resource Organization. No decision regarding participation is likely to be made immediately.* It may even be necessary for the recruiter to make several contacts with the organization's top management before developers are asked to explain the program to its department heads and supervisors.

Program Presentation. The audience may be the entire staff, to which the Resource Analyst must explain the program and what participation will mean, or it may only be department heads whose employees will be affected by participation. After this presentation is completed, the Resource Analyst should arrange individual conferences with department heads who will participate in the EBCE program. This could involve several meetings at which site activities for students are planned and personal commitments for participation obtained from employees.

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* Management of an organization may endorse the EBCE concept but decline to participate as an organization. It is not uncommon for such organizations to take a passive role but permit recruitment of individual staff members by EBCE. In Oakland, for example, the local municipal utilities district was approached with a proposal to become an RO. The personnel division determined that it did not want the responsibility of coordinating EBCE activities, but recommended to the district's management that the program be endorsed and that a resource developer be permitted to make a recruitment presentation to the heads of its various divisions. Ultimately a number of division heads were recruited as individual RPs.

Site Analysis. Analysis of learning activities is done department by department and requires several interviews. Learning activities are designed according to the policy established by RO management, the interests of the department head, and the type of department involved. Students may work with staff members on a one-to-one basis in activities like those possible with Resource Persons. In other departments, they will follow a set schedule of activities. For example, the advertising department of a retail furniture company requested a schedule of activities be developed so that students could follow the creation of an ad from beginning to end. The process took three weeks, so the activities were drawn up accordingly. Supervisors of smaller departments in the same store were developed as Resource Persons. Learning activities can and should be designed to match the routines, tasks, and interests of each department's staff.

Coordinating Initial Student Activities. Because the Resource Analyst has a relatively intimate working knowledge of the RO and its personnel, it is logical and necessary for him to coordinate arrangements for the first student Orientation activities that will take place at the learning site. This need not be the Resource Analyst's ongoing responsibility, but it is good insurance that the expectations of students and RO employees will be met or that difficulties can be rectified if they arise.

Developing Community Resources

Community Resources do not require extensive development, since they are agencies, organizations, and services open to the public. EBCE staff should contact them to learn their hours, the information they have available, their major exhibits (if any), fees, and the type of assistance they offer the public. Museums, city council meetings, the local Better Business Bureau, exhibit halls of colleges and universities, libraries, state agencies (such as health clinics and the employment office), and similar organizations and offices are considered Community Resources. Their staff, however, may be recruited to serve as Resource Persons.

Alternative Development Procedures

The resource development procedures discussed on the preceding pages are concerned primarily with establishing a resource pool. Once that goal has been achieved, staff can reduce development costs by turning to alternative resource recruitment and development methods. The Far West School's EBCE model developed two alternatives: (1) use of a short form, called the Resource Information Sheet, and (2) student recruitment of resources.

Short Form Development

The Resource Information Sheet (Appendix 5, Item 4) reduces development costs by postponing the writing of a Resource Guide until there is demonstrated student interest in working with a resource. After recruiting a resource, rather than conducting a lengthy site analysis interview, the developer merely completes (or has the resource complete) the Resource Information Sheet. This form records all the basic information students need to participate in Orientation activities.

A student who wants to do an Exploration or an Investigation with the resource completes a Resource Exploration Approval form (Appendix 5, Item 5) and submits it to his Learning Coordinator for approval. The LC forwards the approved form to the Resource Analyst, who then arranges a site analysis interview. Ideally, the student accompanies the Resource Analyst on this interview and together the three of them plan the student's Exploration activities. At the same time, the Resource Analyst gathers the necessary information for writing a Resource Guide.

Unfortunately, the short form generally cannot be used with Resource Organizations. In order to provide adequate information to students and Learning Coordinators about the diversity of possible learning activities at an RO, a complete Resource Guide is usually needed.

Student Resource Recruitment

Since students often discover and recruit their own resources, procedures are needed to ensure that the resource is oriented to the program and that he understands his role in EBCE. These procedures also provide some control over student resource recruitment so that unnecessary proliferation of resources in areas already covered does not occur.

Students should recruit resources only when the program's resource pool fails to meet their needs. After a student has reviewed the Resource Guides and determined that no resource is available in the career or subject area he wishes to pursue, he can, with his LC's approval and the Resource Analyst's assistance, identify potential Resource Persons who will fill his need. The student can then contact and obtain commitments from those potential resources. A student may also ask the Resource Analyst to try to recruit a particular kind of resource by completing a Request for Resource (Appendix 5, Item 10).

If a student undertakes resource recruitment, he should follow steps similar to those the Resource Analyst follows:

1. Check the active, inactive, and unconfirmed resource files to verify that the resource to be recruited has not already been previously contacted. This is primarily to avoid contacting someone who has given a flat refusal to participate. However, if persons are in the unconfirmed file, the student can use this information to advantage by referring to it when making his initial inquiry.

2. Fill out a Resource Contact Card (Appendix 5, Item 2) on each person contacted, regardless of the outcome of that contact. These cards will be cross-referenced by name of business and filed in either the active, inactive, or unconfirmed files.

3. When a student obtains a potential resource's commitment to participate in EBCE, he must complete the Student-Recruited Resource card (Appendix 5, Item 11), have the resource sign it, and submit it to his Learning Coordinator for approval before beginning activities with that resource. If approved, his Learning Coordinator forwards the card to the Resource Analyst for follow-up.

The purpose of follow-up contacts by the Resource Analyst is to be sure the resource understands the program, to provide him with samples of student forms and explain their use, and to analyze the site for learning activities. If the student will only be working with the resource at the Orientation level, a Resource Information Sheet is sufficient. Otherwise, a Resource Guide should be written. The student should accompany the Resource Analyst to help identify learning activities and to learn what resources need to know about the program.

Recording Resource Responses

Resource Contact Card

As various staff members contact potential resources, responses must be recorded to avoid embarrassment and duplication. The Far West staff developed the Resource Contact Card file for this purpose. (The contact cards are also used to record changes in the status of resources.)

A Resource Contact Card (Appendix 5, Item 2) is filled out for every person or organization contacted as a potential resource. Two copies are made for cross-referencing: one under the name of the individual contacted, and one under the name of his business or the company for which he works. The cards are filed alphabetically in one of three file boxes:

1. active, for persons and organizations which have been successfully recruited and are serving as program resources;
2. inactive, for individuals or companies which have been contacted and declined to participate, and for those which have dropped from the program; and
3. unconfirmed, for those potential resources which have expressed interest in participating in the program but have not yet become active.

Persons contacted by EBCE staff may be placed in the inactive or unconfirmed files for a variety of reasons. They may be relegated to the inactive file because they have left their jobs, have moved to a new and inaccessible position within the same organization, or are permanently or temporarily unable to volunteer their time due to their workload. Some also become inactive when program staff recognize that they have misunderstood the purpose of EBCE; they may believe students should only learn clerical tasks, or may confuse the program with on-the-job training and/or vocational education. Occasionally, resource recruiters will also recognize other problems (such as undesirable personal traits) at the recruitment interview and will cease development.

The unconfirmed resource file contains information on persons who have indicated they are interested in the program but, for a variety of reasons, cannot be used as active resources at present. Typically, these people are in the middle of administrative overhauls where they work, or their job sites are undergoing renovation or construction. The unconfirmed file at Far West School always contained a number of such resource possibilities awaiting development during the school year. The development of unconfirmed resources should be pursued because their interest in EBCE has already been identified.

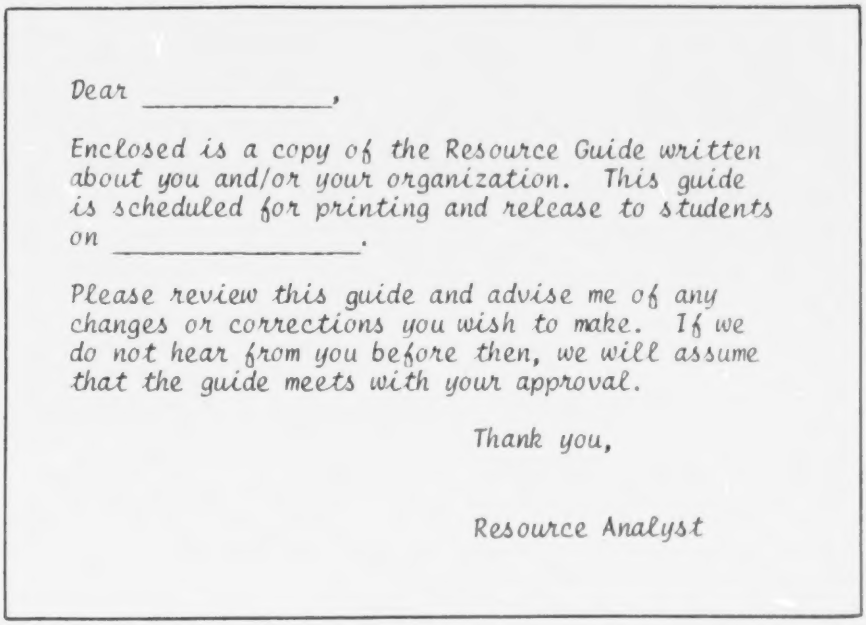
Resource Guide

The end product of resource development is the Resource Guide. The Resource Analyst derives from recruitment, development, and site analysis quantities of information which must be condensed and made available to students in terms which they understand and will spark their interests. To do this, Far West School developed the Resource Guide, which also provides information helpful to school staff and the resource about whom it is written. (Sample Resource Guides appear on the following pages and Appendix 4 contains a step-by-step explanation of how to write one.) The Resource Guide describes the types of learning activities students can expect at a given resource site. This information is useful to Learning Coordinators as well as students. LCs cannot be knowledgeable about every resource in which their students are interested. The guides save them time by offering them specific information about learning sites which they can use when providing student guidance.

Guides are also useful for resources as a reminder of the activities they discussed and agreed upon earlier with the Resource Analyst. Guides serve resources as a point of departure for building more individualized learning activities for a student and should be used as a reference to the types of things a student could do or learn at the site rather than as a manual of everything the student must do or learn. For this reason, the guides offer only suggestions for the kinds of activities and projects available. It is left for the resource and student to decide together the specific activities and projects to be undertaken, based on that individual student's needs and interests. Because it is important that the guide accurately reflect what students can do and learn at the resource site, a copy of the draft should be sent to the resource for review before it is printed and made available to students. The resource should be told to expect a copy of his guide in the mail with a request to review it. The brief form letter used by Far West staff is given as Exhibit 4.

Exhibit 4

Form Letter Accompanying Review Copy of Resource Guide



Dear _____________,

Enclosed is a copy of the Resource Guide written about you and/or your organization. This guide is scheduled for printing and release to students on _________________.

Please review this guide and advise me of any changes or corrections you wish to make. If we do not hear from you before then, we will assume that the guide meets with your approval.

Thank you,

Resource Analyst

Sample Resource Guides

Resource Person Guide

195 Jasper

Career family: III, VII

Subject area: Art, English, Economics

Package: Communications and Media, Commerce

"The greatest weakness in business, whether large or small, is its inability to communicate with its particular market," says David L. Jasper, public relations manager for Popular Chemical Company. Dave Jasper's interest in communications stems from his long experience in the advertising field. Prior to his present position, he was head of the advertising department of Popular Chemical. Public relations, advertising, sales promotion, merchandising, publicity, and the techniques involved -- ranging from market studies, budgeting, media selection, ad preparation, community relations, presentations, copy writing, illustration, layout, feature articles and releases, to job-hunting skills -- are possible areas for learning activities.

RP Name: David L. Jasper

Company: Popular Chemical Company

Address: 200 Bush Street, 10th Floor, San Francisco, California 94104

Transportation: Take a B bus to San Francisco from the northwest corner of Broadway and Grand Avenue. (They run every half hour at 20 minutes after and 10 minutes before the hour.) Walk from the Transbay Terminal to Market Street. Cross Market to the intersection of Bush and Front Streets. Turn up Bush Street and walk one block to Sansome Street. 200 Bush is at the corner of Sansome and Bush.

Phone: 894-4519

Hours: 9:00 a.m. to 4:00 p.m., Monday through Friday

The ORIENTATION will last about two half-days and will cover informal discussion of possible activities and areas of study. Your interests and needs will be discussed and a schedule of activities and meetings can be arranged. As many as two or three students can work with Mr. Jasper at one time.

The EXPLORATION will take about two half-days a week for three or four weeks. Depending on your interests and program needs, you can work on current Popular Chemical public relations projects; accompany Dave Jasper to meetings and luncheons with freelance artists, writers, and photographers, with community educators, newspeople, and other persons with whom he has contact; or learn how to make motion pictures and slide presentations, conduct surveys, interview people, and write advertising copy.

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David Jasper

The INVESTIGATION is your opportunity to develop some of the skills used in the fields of communications, advertising, or public relations. You can learn as many related skills as you desire, such as copy writing, illustrating, making presentations to community groups, marketing techniques, and merchandising. Or you can set up an advertising or public relations program -- from picking the theme to working out the budget -- for a real or imaginary business.

Suggested learning activities:

ORIENTATION

1. Before visiting Mr. Jasper, look up the career of public relations manager in the career information materials. List some questions you have about the field of public relations and what you can do and learn at Popular Chemical.

2. If you decide to do a project at Popular Chemical, arrange a schedule of further visits.

3. Discuss your Orientation experiences with your LC, including such things as:

   a. possible activities in which you can participate;
   b. your interests and program needs in relation to this RP;
   c. possible project topics;
   d. career information you have learned; and
   e. why you will or will not do a project at Popular Chemical.

4. Explain why Popular Chemical has a public relations manager and what his major tasks are.

EXPLORATION

Plan and carry out a project which focuses on or includes one or more of the following, or negotiate similar activities with David Jasper.

5. Accompany Dave Jasper to meetings and luncheons with freelance artists, writers, photographers, and other persons with whom he works on projects for his firm. Note the reasons Mr. Jasper mentions for the assignments he gives these people and the nature and purpose of what he wants them to do. If possible, arrange to observe all such meetings for one project so that you can observe how the writing, artwork, photography, and production work are planned and coordinated. Interview Mr. Jasper and others in the field of public relations and do some related reading to learn:

   a. the purpose of public relations;
   b. what a person in the career does;
   c. the skills necessary;
   d. ways of entering the field; and
   e. the necessary education and training.

   Write a report on the field of public relations based on your experiences with Mr. Jasper and your research on the nature and purpose of the career.

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EXPLORATION (cont'd)

6. Assist Dave Jasper in one of his projects by doing the art work. Keep all drafts of what you do and take notes to record Mr. Jasper's comments and criticisms. Write an essay describing what you learned about producing art to serve a specific purpose and how it is used in advertising or public relations.

7. Develop a rating form to evaluate commercials on television (such as beauty product commercials or household cleaner commercials). Using the information you compile with this form, discussions with Dave Jasper and others in the advertising field, and information acquired through library research, compose a slide-tape presentation which answers the following or similar questions:

   a. What is the purpose of advertisement?
   b. How do advertisement methods and styles differ and why?
   c. What makes an ad effective?
   d. How do advertisements reflect or distort social values, behaviors, and goals?

8. Discuss your needs, interests, goals, and values in relation to a career in public relations, communications, advertising, or a related field.

INVESTIGATION

9. Set up an advertising program for a real or fictitious business, including:

   a. doing the necessary market research;

   b. doing a prospect study;

   c. studying the layout of the store, merchandising techniques, sales promotion activities, and the sales training for the clerks;

   d. selecting the media to use for your program;

   e. preparing your advertising, including:

      (1) copy,
      (2) layout,
      (3) illustration,
      (4) "continuity" (the campaign theme), and
      (5) the image or personality (of the business or owner of the business) to be projected; and

   f. budgeting -- how much the program will cost; how much the business is prepared to spend; whether the business makes enough to justify the expense; if the cost is too high, how it can be reduced; etc.

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INVESTIGATION (cont'd)

10. Set up a public relations program for a real or fictitious business, including:

    a. deciding what you hope will be the outcome of the program;

    b. specifying the techniques to be used:

        (1) media contact,
        (2) news releases,
        (3) community activities,
        (4) printed materials,
        (5) photographs, and
        (6) the theme; and

    c. preparing public relations copy acceptable for actual release and coordinating the completion of the art and production work by freelancers (with the assistance and supervision of Mr. Jasper).

Related reading; information sources:

See the RO Guide on the Advertising Department of the Paul Hubbard Company (Corporate Offices). Mr. Jasper can suggest reading related to your project.

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Resource Organization Guide

916 The Sign Newspaper Group

Career family: V

Subject area: Journalism, English, Spanish

Package: Communications and Media

The Sign Newspaper Group is made up of six separate newspapers, each of which serves a specific community. *Ciudad* is the Sign's bilingual publication and here you have the chance to brush up on your Spanish. The other five newspapers are *The Oakland Sign*, *The Berkeley Sign*, *The San Francisco Sign*, *The Richmond Sign*, and *The Seaside Sign* (which serves the Monterey community). The Sign Group provides a unique look at all phases of newspaper work and represents a new and different approach to the news media.

Students who want to get involved with the Sign Newspaper Group will find the entire range of newspaper production available to them, including work with the classified ads, the circulation department, news reporting, layout and paste-up, photographic work, editing, writing, and graphic arts.

A. Michael Antanella is the managing editor and your contact at the Sign Newspaper Group. He will arrange for you to work with other people at the newspaper depending on your interests.

RO Name: **The Sign Newspaper Group**

RO Coordinator: **A. Michael Antanella, Managing Editor**

Address: **630 - 20th Street, Oakland, California 94612**

Transportation: **The Sign's offices are within walking distance of the school; or take an AC Transit bus down Broadway to 20th Street, then walk north one block.**

Phone: **763-1120. Please do not call on either Friday or Tuesday. Those are the days before the paper comes out and the staff is busy meeting their deadlines.**

Hours: **9:00 a.m. to 5:00 p.m. daily**

The ORIENTATION, for individuals and groups, will be with Mr. Antanella. He will discuss newspaper work with you; answer questions you have about layout, editing, writing, how assignments are made, and requirements for careers; introduce you to the staff; let you observe people putting together the latest edition; and take you on a tour of the offices. The best day for the Orientation is Wednesday and it will probably last about three hours.

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In the EXPLORATION you can work in a particular department of your choice, or you and Mr. Antanella can arrange activities that will enable you to spend time circulating from one department to another. You can assume responsibility for an assignment of your own -- doing artwork, reporting or photographing a story -- or assisting one or more members of the staff.

In the INVESTIGATION you will be able to focus your interest on one particular aspect of newspaper publishing: reporting, photography, editing, layout and paste-up, graphics, circulation and advertising sales, or management. You will do this by selecting which area you would like to concentrate on and arranging a schedule of activities with Mr. Antanella and the appropriate staff members. You will work in that department alongside the regular staff and will be responsible for various tasks and assignments during your Investigation with the paper.

Suggested learning activities:

ORIENTATION

1. Prepare for the Orientation by listing some of the questions you have about newspaper journalism and what you can do and learn at the Sign offices.

2. Discuss your Orientation with your LC, including:

   a. which communities are served by the Sign Newspaper Group;

   b. the kinds of news covered by The Sign;

   c. possible activities in which you can participate at the Exploration and Investigation levels; and

   d. career information you have gained about the newspaper industry.

3. Decide whether to do a project at this RO and discuss your reasons with your LC.

EXPLORATION

4. If you decide to do a project at the Sign Newspaper Group, discuss possible project topics with your LC and the RO Coordinator.

5. Write a series of articles on a topic of your choosing, such as the energy crisis, juvenile civil rights, or some other topic of personal interest. [illegible] your drafts of each article so that you will have a record of [illegible] your writing changed and improved.

6. Help your RP put one edition of *The Sign* "to bed."

7. Do the layout and paste-up for one edition of *The Sign*.

8. Do all the photographic work for an assignment given you by your RP, including taking, developing, and printing the photographs.

INVESTIGATION

9. Design a full-page ad, including making drawings and setting up type faces.

10. Accompany news reporters to news scenes; assist them in interviewing and fact-finding; and write several articles for publication.

11. Accompany the photographers to news scenes; take, develop, and process your own photographs; compose captions for them; and suggest their layout with the accompanying article on the page.

12. Assume responsibility for your own newsbeat, such as the high school scene or your own community. Prepare regular articles or a series of photographs for the paper reporting newsworthy events on your beat.

Related reading; information sources:

James MacDonald at *The Community Dispatch*
Atlantic Rotaprinting
Tim Schneider at *The Oakland Barb*
The South American Library (a CR) for students interested in Spanish credit
Newsman's English by Harold Evans (available at the public library)

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Community Resource Guide

Career family:	III, V, VIII
Subject area:	Business Education, Economics, Sociology, American Government
Package:	Commerce, Social Science

The Better Business Bureau has been in existence for about 60 years. The Bureau provides a service to consumers and businesses by maintaining membership files on each business choosing to register with the Bureau. Such businesses provide information to the Bureau about type of ownership (sole proprietorship, partnership, or corporation), length of time in business, name and address of the owner, nature of the business, and products and services. If a consumer calls to register a complaint against a business, the details of the complaint and its outcome are recorded and filed with the registration form. This information is open to the public by telephone inquiry or personal visit. The Bureau administers two basic programs: a consumer education and an arbitration program. If you would like information about anything related to consumerism, the Better Business Bureau can provide you with it. If you have a grievance against a business, you can file a complaint by filling out a form, submitting it to the Bureau, and taking it before their arbitration panel for out-of-court settlement. The panel consists of 30 to 40 business volunteers.

The Bureau has many pamphlets and other printed materials you can obtain on request. If you would like additional information, visit the Bureau and talk with one of their consultants.

CR Name:	Better Business Bureau
Address:	1850 Carter Street, 6th Floor, Oakland, California 94612
Transportation:	Take a #60 bus to 18th and Carter. Walk half a block south.
Phone:	848-6600
Hours:	Monday through Friday, 10:00 a.m. to 3:00 p.m.

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179

Resource Support

Time and effort spent on identifying, recruiting, and developing resources for an EBCE program are an investment in the program's future. This future can be placed in jeopardy, however, if the staff does not take effective steps in the form of spot-checking and trouble-shooting student/resource interactions. Resource maintenance and support should be part of the regular routine of Learning Coordinators and the Resource Analyst, and should occur on a continual basis throughout a resource's participation in the EBCE program. All RPs and ROs should be contacted at least once each semester, even if they are not currently working with students. This reinforces their commitment to the EBCE program and reminds them that they are regarded as an important asset, even if temporarily dormant. Contacting resources currently involved with students enables staff to gather new information about possible learning activities at the site, to update Resource Guides, to monitor student learning, and to provide feedback to resources.

Learning Coordinator Role

There are two important reasons why Learning Coordinators should maintain contact with resources: (1) to monitor the progress of their students and (2) to provide resources with positive feedback concerning their impact on students. The only real reward a resource has for his voluntary service is the knowledge that he is providing students with satisfying, constructive experiences which help them attain their personal, educational, and program goals. At Far West School, several resources wanted to see samples of products completed by students who had worked with them, because they had become deeply involved in those students' accomplishments. Resources frequently check with the school to follow up on former students with whom they have worked, seeking the satisfaction of knowing that the students profited from the time and effort spent at the learning site.

Learning Coordinators cannot follow up on every student Orientation with a resource. At a minimum, however, they should contact each resource with whom a student is engaged in Exploration- or Investigation-level experiences at least two times: once to elicit the resource's advice and concurrence on the student's planned project activities and goals; and once, on completion of the student's involvement, to evaluate student achievement, to thank the resource for working with the student, and to provide feedback to the resource on what the student learned or how he benefited from the experience. If the student is working with the resource for an extended period, the LC should also make periodic contacts to monitor the student's progress. If possible, the resource should be sent a copy or invited to see the student's project product or other concrete evidence of what the student gained from the experience.

Resource Analyst Role

The Resource Analyst's maintenance responsibilities are to:

1. Keep the resource pool intact. If resources have to withdraw their participation, replacements must be identified, recruited, and developed. The most desirable method of keeping the pool intact, of course, is to dissuade resources from withdrawing. Another way is to have regular contacts with resources and to quickly respond to student/resource problems that arise.

2. Make sure information needed to contact program resources is current. Changes of address, title, and phone number should be immediately recorded on the Resource Guides.

3. Ensure that Resource Guide descriptions are accurate. The Resource Analyst should ascertain that activities listed best represent the range of learning opportunities at the resource site and that they will motivate students to contact the resource. It is quite possible that a student doing Exploration or Investigation activities at a learning site will become involved in many more types of activities than the original Resource Guide indicated. It may also turn out that the original Resource Guide was in some way unrealistic or that the particular resource could not in fact provide the learning opportunities that had been anticipated. The guides, therefore, may need periodic revision to reflect the actual learning potential at the site.

Resource Support Principles and Methods

Developing a resource pool requires considerable time and effort. Below are some guidelines for protecting this investment.

The program should establish a liaison between resources and the school to keep in touch on a regular basis and impress upon resources their importance to the program, although they may not currently be playing active roles. After initial recruitment, a resource might not immediately be used by a student. If too much time elapses without contact from EBCE staff, the resource might forget his commitment to the program; his enthusiasm may wane, causing him to withdraw when a student finally does call.

Usually a phone call is sufficient to maintain the resource's interest, but it may be necessary to encourage visits by students. The Resource Analyst could arrange a group Orientation at the resource's site to introduce him to students. Other techniques that might spark students' curiosity include arranging an Orientation for a student whose interests are related to the work of the resource and accompanying him on his first visit; bringing the resource to the school to discuss his work and what students could do and learn with him; and asking the resource to guest-teach a seminar or discussion group of students working on projects related to his or her career field.

The staff should also keep students aware of noteworthy resource activities which might motivate students to approach those resources. Many resources, as individuals or organizations, appear in the news media on a regular basis. This makes them more intriguing to students because they take on visible personalities. Such newsworthy activities do not necessarily have to relate to the jobs performed by these people to capture student interest.

The school must enable each resource to participate to the extent he desires. EBCE is a cooperative enterprise and each resource should be made to feel he has a voice in policies, plans, and procedures that relate to him. He is an interested party. For this reason, resources are sent drafts of Resource Guides for their approval, corrections, and comments before making them available to students. Far West School also sends resources copies of project planning packages in which they are listed to elicit their observations and criticisms and to provide them with instructional aids.

Resources can participate in other aspects of the program as well. They should be represented on the Policy Advisory Board and any other similar program advisory council, if one is organized. They should be invited to open houses to meet students and staff and to see completed projects. Workshops can be held for resources to discuss different ways of working with students, teaching techniques, resource expectations of students, and resource roles and responsibilities. Further, resources should be encouraged to call or visit whenever they have the time or feel the need.

EBCE should provide resources faced with problems a means of relaying to program staff their frustrations, concerns, complaints, and questions about the nature of their relationship to students. Students do not always treat their obligations to resources as seriously as the resources themselves or the program staff would like. Some students miss appointments, fail to meet commitments, or display other behaviors detrimental to the program's relationship with the resource. A resource may, for example, spend substantial time with a student working out elaborate project plans, only to have the student, without explanation, fail to act on them. Staff neglect in following up promptly on such situations will surely lead to the resource's withdrawal from the program.

Resources should always feel free to call the school and know that they can talk to the Resource Analyst or the student's Learning Coordinator. The telephone must be for them a sure and reliable link to EBCE. A resource must be able to express any problems occuring and expect some staff action to resolve them. Student tardiness, inattention, or failure to carry through on commitments are the most common complaints.

When the Resource Analyst or LC is contacted about a problem, the first step is to assure the resource that the staff will investigate it thoroughly. The staff should not assume automatically that either the student or the resource is to blame. Irresponsibility on the part of a student is sometimes a sign that there is a problem the student is not able to solve any other way. For example, a student who was bored with a resource because he was involved only in menial tasks unrelated to his interests simply stopped visiting. The student was too shy to approach the resource to discuss what he really wanted to do; he felt he had to do what the resource wanted. The Resource Analyst can intervene in such situations as an impartial third party.

Resources should be kept informed of students' progress. Resources like to know what effect they have had on the students. Have students learned something? If so, what? Phone calls from Learning Coordinators, open houses at which students' projects are exhibited, newsletters reporting students' activities and progress, and similar methods help keep resources abreast of their effect on students.

The program must keep resources advised of school schedules and staff changes which might affect them. Any EBCE program will have its share of schedule changes, holidays, vacations, and other disruptions of student routine, and it is embarrassing as well as wasteful for an RP or RO to be left unaware of such changes. Special notices or announcements in a newsletter sent out by the Resource Analyst can keep resources informed of the school's calendar.

EBCE staff should maintain an atmosphere of communication that prompts resources to keep the program informed about special events. Resources sometimes attend professional conferences or participate in similar activities they may be willing to make available to students. For example, Far West School's resource in the county Central Labor Council arranged for students to attend sessions of the Council's Committee on Political Education (COPE). If resources really feel they are educational colleagues with EBCE staff, they will be anxious to share special events as well as routine ones with students.

Mechanisms must be provided for continual renewal of vital information about the resource. Students easily become discouraged about using resources if they find that the information provided about those resources is out of date or otherwise inaccurate. Details such as incorrectly reported telephone numbers may dissuade them from using a resource.

With some RPs and more frequently within ROs, staff reassignments and other changes occur which affect program participants. Internal reorganizations may eliminate departments, create new ones, or have an effect on the internal politics of a given department. At the Oakland site, one RP moved her business to a new location without the school knowing about it until a disgruntled student complained about the inaccurate Resource Guide and nonexistent resource. These difficulties and others make it essential for EBCE staff members to keep abreast of such changes and aware of implications they may have for a resource's participation in the program.

Maintaining Open Communications

Telephone calls and personal visits have been found to be the most effective means of maintaining the resource's sense of involvement in the program. Telephone calls cause the least interruption in their routine while providing the opportunity to ask questions, voice concerns, and receive an immediate response.

Updated information for Resource Guides is easily gathered by telephone. A resource receiving such a phone call is reassured that his participation really matters, that he and his work are important to EBCE. This is especially important to resources who either have not seen or are not currently seeing students. A telephone call can also elicit information about the validity of a student's problem or complaint. A call to a FWS Resource Organization revealed that one department was using students as unpaid clerical help, contrary to the program's purpose. An immediate visit by staff was required to resolve the problem. On the other hand, most minor misunderstandings between students and resources can be resolved over the telephone without further action.

Visits to resource sites by Learning Coordinators and the Resource Analyst make them more aware of the atmosphere there. This kind of information, which is best learned directly, is important when counseling students about which resources to visit.

When resources visit the school, they tour the facilities, meet staff and students other than those they have worked with, and see the resource center in operation. Unfortunately, resources are often too involved in their work to get away for the amount of time a school visit would require. When resources can take the time, however, school visits serve the important purpose of making them more familiar with the school and less hesitant to call for help or to announce changes or special events.

By arranging a luncheon meeting, the Resource Analyst can meet with resources without disturbing their schedule and also say "thank you" for the time and effort contributed to the program.

Written communications demand a resource's time and effort to read and, in some cases, to respond. Written materials can serve as useful references. Resource Guides, the Guide for Resource Persons, and brochures serve this function. A personal letter from a staff member on a specific matter of interest to the resource, or letters to announce special events are also useful. However, the immediacy of a familiar face or a spoken word is lacking with personal letters. Program staff may find that personal letters are best used as a means of thanking a resource for some special cooperation with the program such as conducting a workshop. Far West School annually sends participant resources certificates of thanks for their time and effort as tokens of appreciation.

A final method of maintaining open lines of communication is a newsletter, published periodically and sent to all resources. The program newsletter is more than a means of good public relations for EBCE. It is a vehicle for providing all resources with up-to-date information about the school, its staff and students, newly recruited resources from the community, and program highlights such as unique student undertakings with individual resources. It is also open to resource contributions and provides a means of resource participation. Each issue reminds them their comments and articles are as welcome as those of students and staff. A question-and-answer column addresses problems and issues most often raised by resources.

The newsletter should be produced and distributed on a regular basis or it may lose its impact and risk being regarded as junk mail rather than as a communications tool. Each resource normally works in relative isolation from the rest of the program unless he visits the school site. An informative newsletter helps minimize a resource's feelings of isolation by stressing that he is in fact the person providing the experience in Experience-Based Career Education.

The newsletter should include some information about student activities at specific resource sites to give other resources ideas on which to build new activities at their own sites and to tell them who else is participating and how. The newsletter is a good medium for discussing tips to help resources increase their effectiveness and, consequently, their ultimate satisfaction and sense of accomplishment in working with students.

Resource
Information System

The purpose of the resource information system is to provide accurate, up-to-date information for student project planning. New resources must be announced, descriptions of the possible learning activities made available, changes recorded, and overuse of individual sites prevented. (Appendix 4 describes how to write a Resource Guide. Appendix 5 contains brief descriptions of resource information forms as well as copies of each.)

This section tells how resource information is stored, revised, and used. It would help the reader to review Appendix 5 before reading this section.

Storing Information

Resource information is stored in four places: the Resource Contact Card file; the Resource Log; the alphabetical files; and the project planning packages. Each file contains slightly different kinds of information or organizes it in a different way.

Resource Contact File

Whenever an organization or individual is contacted as a potential resource, a Resource Contact Card (Appendix 5, Item 2) is filled out and filed. If the potential resource is unable to volunteer for the program, the card is put in the inactive file. If the resource agrees to work with students, the card is put in the active file. But if the resource is unsure and requires further discussion and explanation of the program, the card is put in the unconfirmed file. These files provide an instant reference for staff and students seeking to identify and recruit additional resources. Before contacting a potential resource, the card files are reviewed to assure that the person making the contact is aware of any previous negotiations between the individual or organization and the program, and to avoid duplication of effort.

Resource Log

The information recorded on the Resource Contact Card is transferred to the Resource Log (Appendix 5, Item 3) when a resource is recruited. When a resource withdraws, the reason is entered and a line is drawn through the entire log entry. From this log, staff can quickly compile information about the resource pool such as demographic data, numbers of resources according to career categories or packages, or numbers of RPs, ROs, and CRs. The logs are used to periodically assess the adequacy of the resource pool and identify areas in which resource development efforts should be concentrated.

Project Planning Packages

Packages group resources according to a combined career and subject area. Students and staff can review the package's annotated list of resources when planning projects. For example, a student interested in physical science can find the available resources relating to the physical sciences and associated careers in the Physical Science Package.

Alphabetical File

Three alphabetical files -- for Resource Persons, Resource Organizations, and Community Resources -- contain multiple copies of the Resource Information Sheet (Appendix 5, Item 4) or Resource Guide (Appendix 5, Item 8) for each available resource. Filed with the Resource Guide or the Resource Information Sheet are brochures about the site and media articles about the resource (clipped and filed by the Resource Analyst).

Revising Information

Because resource descriptions influence students' program and project plans, it is very important that they be factual. Essential information changes can be categorized as either relating to the resource itself or to the activities open to students. The first includes such things as job title, address, phone number, and hours. Ordinarily the resource contacts the school to inform the Resource Analyst about such changes. Sometimes a student will discover the change and inform his Learning Coordinator or the Resource Analyst, who records it on the Resource Information Sheet or Resource Guide.

Changes in activities are usually identified by the Learning Coordinator or the Resource Analyst during student progress monitoring and resource support contacts. Development of a resource is based on what the Resource Analyst and the resource anticipate could take place. After students visit the site, conceptions about possible activities often change. One of the purposes of maintenance contacts is to discover whether activities projected as feasible during development are realistic and if additional activities have opened to students. Such modifications are noted on the Resource Maintenance Contact Report and the Resource Guide is amended accordingly. Similar information is sometimes discovered by the Learning Coordinator when he contacts a resource to assess a student's progress. If so, a copy of the Resource Contact Report - Student Assessment is forwarded to the Resource Analyst so that he can follow up.

Finally, students will tell their Learning Coordinator or the Resource Analyst if activity descriptions on the Resource Information Sheet or Resource Guide are inaccurate or unrealistic. Staff action to correct the guide must be immediate.

Using Information

Students can access information about resources by subject and career areas through perusal of the annotated resource lists in the project planning packages.* Once the student identifies resources of potential interest, he can obtain a more detailed description of each from the alphabetic file of Resource Guides and Resource Information Sheets. A review of these descriptions enables the student to select the resources most closely related to his area of interest and plan Orientation activities with them. Students needing help identifying appropriate resources or understanding Resource Guides can request assistance from their Learning Coordinator, the Package Coordinator,* or the Resource Analyst.

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* Five packages have been developed at Far West School in the areas of Commerce, Communications and Media, Life Science, Physical Science, and Social Science. (See Volume IV.)

A student interested in a specific career and unable to locate an appropriate resource through packages consults the Resource Analyst. The Resource Log enables the Resource Analyst to quickly review the resource pool (including volunteers developed since packages were printed) for an appropriate resource. If none exists, the student prepares a Request for Resource (Appendix 5, Item 10), which must be approved by his Learning Coordinator, and submits it to the Resource Analyst. The student could also recruit a resource himself. Student-recruited resources complete and sign the Student-Recruited Resource card (Appendix 5, Item 11), which is also signed by the Learning Coordinator. The card is sent to the Resource Analyst for follow-up action.

New resources and those withdrawing from the program are publicized by the Resource Analyst through written bulletins to the Learning Coordinators or oral announcements during advisory group meetings. Group learning activities arranged by the Resource Analyst are also announced by those means.

When a student is ready to do an Exploration at a site, he completes a Resource Exploration Approval (Appendix 5, Item 5) and submits it to his Learning Coordinator. If approved, it is forwarded to the Resource Analyst, who checks:

1. the number of students with whom the resource is already working and
2. whether the resource has been analyzed for learning activities (that is, whether a Resource Guide has been written or only a brief Resource Information Sheet is on file).

Most resources place an upper limit on the number of students with whom they are willing to work. If the resource the student wants to visit is already working to his stated limit and is not willing, after talking to the Resource Analyst, to take any more students, a waiting list is drawn up. Occasionally a resource will call the school to request that no more students call until one or more of the students he is working with complete their projects. The resource's folder is then pulled from the alphabetical file and students and staff are informed of his status.

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* Each LC also coordinates one of the packages. See Package Development.

When a student requests Exploration activities with a partially developed Resource Person (one for whom there is only a Resource Information Sheet on file), the Resource Analyst schedules a site analysis interview and takes the student with him. During the interview the Resource Analyst, the student, and the Resource Person develop activities for that student and analyze learning activities for subsequent students. The Resource Analyst then writes a Resource Guide to replace the brief Resource Information Sheet.

While as much resource information as possible is recorded for student and staff use, it is not possible to capture on paper the atmosphere or the full range of experiences at a particular site. Word-of-mouth communication among students is faster and has more impact on them than the written word. Learning Coordinators, responsible for helping students plan projects, need to know the kinds of things students can do and learn at resource sites from their own direct observations and discussions with resources. The Resource Analyst should also observe students at resource sites to ensure that written descriptions of the site activities reflect what actually does and can take place. (The preceding section on resource support discusses methods for staff monitoring of student resource site activities.)

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Appendices

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Appendix 1

Sample Telephone Recruiting Presentation*

"Hello. My name is ___________. I represent Far West School, an alternative high school educational program. Our students work with individuals and organizations in the community to acquire the knowledge and develop the skills they will need after high school. We particularly need resources in the field of ______________________."

[*For potential Resource Persons, say:* "Would you be interested in sharing your knowledge and skills with high school students?"]

[*For potential Resource Organizations, say:* "With whom should I speak about the possible participation of your organization in our program? Is he or she available?" *Repeat the first paragraph as needed.*]

"Our program, called Experience-Based Career Education, is designed to prepare students to make informed career choices and equip them with the knowledge and skills necessary to pursue their career and educational goals. Through use of real-world experiences, we help students develop mature attitudes about employment and their responsibilities as members of the working community. They become aware of the spectrum of careers available and the work to which they must commit themselves if they choose to pursue any specific career they explore. Far West School also enables students to develop some of the survival skills they will need to successfully cope with adult responsibilities when they leave school -- skills such as the ability to meet and deal with a variety of people, the ability to acquire and use information in solving problems, decision-making and planning skills, and learning to accept responsibility for one's decisions and actions.

"Far West students plan and carry out individualized learning projects blending academic subjects, career explorations, and survival skills in an integrated educational program. The school involves representatives of all community elements -- commercial and non-profit, public and private, large and small -- as living resources from which students can learn. In fact, the entire community becomes a classroom in which students combine real-life experiences with the development of academic skills.

"Would you be willing to meet with me to discuss our program and your possible participation in more detail?"

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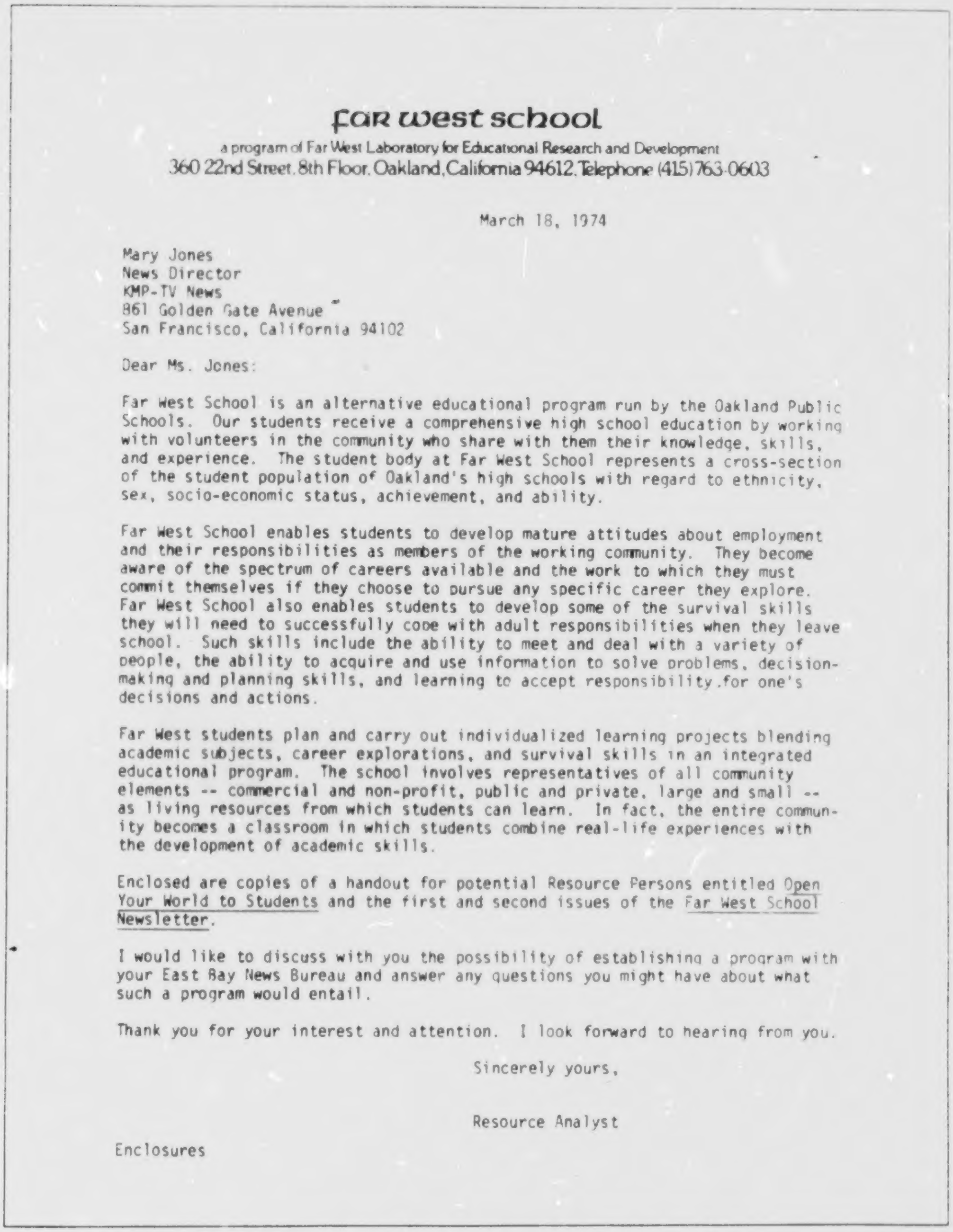
* NOTE: This sample was developed specifically for Far West School. You will need to tailor your presentation to reflect your local EBCE program.

Appendix 2

Sample Resource Recruitment Letter*



far west school
a program of Far West Laboratory for Educational Research and Development
360 22nd Street, 8th Floor, Oakland, California 94612, Telephone (415) 763-0603

March 18, 1974

Mary Jones
News Director
KMP-TV News
861 Golden Gate Avenue
San Francisco, California 94102

Dear Ms. Jones:

Far West School is an alternative educational program run by the Oakland Public Schools. Our students receive a comprehensive high school education by working with volunteers in the community who share with them their knowledge, skills, and experience. The student body at Far West School represents a cross-section of the student population of Oakland's high schools with regard to ethnicity, sex, socio-economic status, achievement, and ability.

Far West School enables students to develop mature attitudes about employment and their responsibilities as members of the working community. They become aware of the spectrum of careers available and the work to which they must commit themselves if they choose to pursue any specific career they explore. Far West School also enables students to develop some of the survival skills they will need to successfully cope with adult responsibilities when they leave school. Such skills include the ability to meet and deal with a variety of people, the ability to acquire and use information to solve problems, decision-making and planning skills, and learning to accept responsibility for one's decisions and actions.

Far West students plan and carry out individualized learning projects blending academic subjects, career explorations, and survival skills in an integrated educational program. The school involves representatives of all community elements -- commercial and non-profit, public and private, large and small -- as living resources from which students can learn. In fact, the entire community becomes a classroom in which students combine real-life experiences with the development of academic skills.

Enclosed are copies of a handout for potential Resource Persons entitled Open Your World to Students and the first and second issues of the Far West School Newsletter.

I would like to discuss with you the possibility of establishing a program with your East Bay News Bureau and answer any questions you might have about what such a program would entail.

Thank you for your interest and attention. I look forward to hearing from you.

Sincerely yours,

Resource Analyst

Enclosures

* NOTE: This sample was developed specifically for Far West School. You will have to adapt it to reflect your local EBCE program.

Appendix 3

Goals and Objectives of Resource Development

The goals and objectives of resource development are to:

1. Meet program needs.
   1.1 Provide a sampling of resources covering the range of occupations across career categories.
   1.2 Enable students to meet their graduation requirements.
   1.3 Enable students to explore their career and subject area interests.
2. Identify, recruit, and develop resources that:
   2.1 allow students opportunities to observe and experience career distinctions between large and small businesses;
   2.2 provide students with opportunities to observe and experience an overview of total business or organizational activities;
   2.3 provide students with opportunities to develop long-term, one-to-one learning relationships;
   2.4 enable students to pursue individual project interests while at the same time acquiring skills and knowledge through hands-on experience;
   2.5 help students progress to increasingly more difficult tasks and assume added responsibilities according to their interests and abilities;
   2.6 permit students to see and engage in specialized career activities; and
   2.7 understand EBCE purposes and goals and their role in the program.
3. Analyze resource sites to:
   3.1 identify learning activities consistent with program goals and objectives and

3.2 record and communicate prerequisites, possible learning activities, and outcomes:

   a. for students, as a preparation for participation at each resource site and an introduction to the person serving as a resource;

   b. for staff, who use the information as a tool for student guidance and counseling purposes; and

   c. for resources, as a reminder of the suggested activities, projects, and products agreed upon by themselves and EBCE staff during analysis of their learning site.

4. Maintain the resource pool at a size and level of quality to:

   4.1 minimize the time and effort which must be spent on recruitment of new resources;

   4.2 continue to provide students with a rich and diverse choice of resources across career categories;

   4.3 maintain free-flowing communications between program staff and resources, and a sense of participation in a cooperative endeavor; and

   4.4 resolve problems between EBCE and its resources in an efficient manner as they arise.

5. Ensure that written information about resources is accurate and up to date.

Appendix 4

Instructions for Writing Resource Guides

[log number] *[resource name]*

RESOURCE
GUIDE

Career family: ____________

Package: ____________

Subject area: ____________

Briefly describe the resource and the major activities of the person or organization which students can learn about and participate in. The purpose of the paragraph is to stimulate student interest in finding out more about the resource and what they can do and learn at the site. Opening with a provocative question or a quote from the resource can be effective. In Resource Person Guides, include and underscore the RP's name, title, and organization. For all other guides, underscore the name of the organization and the contact's name. Any special prerequisites (such as a negative tuberculosis test or reading skill at a particular level) should be given at the end of the paragraph.

RP name: *(or RO coordinator)*

Organization:

Address:

Transportation: Give directions to the resource site via public transportation.

Phone:

Hours: State times when the resource can be contacted.

For explanations of the following levels of involvement with resources, review pages 3 through 6 of the handbook.

The ORIENTATION: Briefly describe what students can expect on an Orientation visit, including activities available (informal discussions, formal presentations, films, tours of the site, and any activities prescribed by the resource), content (the purpose and functions of the work or organization, significant issues or problems related to the field, possible topics for projects, discussion of student interests, and what students can do and learn at the site), and the time required. Also state the number of students who can participate at one time and any special instructions necessary.

In some cases, activities fall easily into the following categories. If they do not, simply put them under the single heading, "EXPLORATION/INVESTIGATION." Use the distinction only if it's helpful.

The EXPLORATION: Provide a brief summary of the activities students can participate in; what careers, subjects, or issues can be explored; and what the student might learn about or learn how to do using this resource.

The INVESTIGATION: Summarize the activities students can engage in, topics or issues they can investigate in depth, and skills they can develop and polish if they are interested in working with the resource for an extended period of time.

Suggested learning activities:

This section should provide interesting, concrete examples of the kinds of things students can do and learn using the resource. Its purpose is to trigger ideas for projects and give students some idea of how to proceed. The learning activities described here will help establish students' and resources' expectations of each other. Make them stimulating, but realistic.

Begin with activities appropriate to Orientations, giving suggestions which become increasingly more difficult. At the Exploration level, include subjects, issues, or careers the student might explore. At the Investigation level, include activities requiring extended involvement which will enable the student to develop and apply specific skills and knowledge. Suggest possible products students could complete. Be sure your examples include activities which require the application of inquiry, problem-solving, and interpersonal skills, as well as activities related to career development. Use concrete action verbs such as "interview," "construct," "analyze," "compare," "propose," or "evaluate" rather than words like "learn about" or "understand."

The list should be numbered. In the left-hand margin, if appropriate, bracket the activities for each level of involvement with the resource.

Related reading; information sources:

Recommend related resources by referring students to other Resource Guides. List relevant books, magazines, and audio-visual materials.

Career family, subject area, and package:

At the top of the first page of the Guide, indicate the career family or families to which this resource is most closely related. Use a career classification such as that developed by the American Institutes for Research. (See Exhibit 2, page 10.) Also list the packages students should use when planning projects using this resource, and subject areas in which they may seek credit.

Appendix 5

Summary of Forms Used in the Resource Information System*

The forms described below are used in the Far West Laboratory EBCE program to record information about potential resources, available resources, and students' experiences at resource sites. These resource information forms are discussed in the order in which they are generally used, although the process is not a strictly linear one. Exhibit 5, which follows the discussion, is a chart listing each form used, when it is used, by whom, and its distribution. Finally, samples of each of the forms are provided at the end of the appendix.

Item 1: Student's Initial Planning Worksheet

This form is completed by the student immediately upon entry into the program and at the beginning of each subsequent school year. On it he lists career and educational interests and answers a number of questions designed to help him think about what he would like to accomplish in the program. The single copy of this form goes to his Learning Coordinator, who reviews it with the student during their first few conferences together to assess student interests as a basis for initial long-term planning. It is also used by the Resource Analyst to compile lists of students' interests when planning resource development.

Item 2: Resource Contact Card

The Resource Analyst records the potential resource's name, address, organization, and the size and nature of the organization on this form. Demographic data for statistical purposes, the outcome of the contact, and necessary follow-up are also noted. The purpose of the form is to log every individual and organization contacted as a source of information to all persons recruiting resources and as a working record of resource development status. Depending on the contact's reaction (yes, no, or maybe), the card is filed in the active, inactive, or unconfirmed Resource Contact Card file which is maintained by the Resource Analyst. These cards should be updated and refiled as follow-up contacts are made and recorded, and as the status of the resource (or potential resource) changes.

---

* In addition to these forms, the Student Activity Report provides information about student use of resources, although the form is more directly concerned with student progress monitoring than with resource information.

Item 3: Resource Log

After recruitment, every resource is assigned a number according to whether it is a Resource Person, a Resource Organization, or a Community Resource. All the information on the Resource Contact Card is transferred to this log sheet. This form provides a quick tally of current resources and demographic data about them, as well as enabling staff to group resources by package and career family. It is completed and filed by the Resource Analyst.

Item 4: Resource Information Sheet

This form, completed after recruitment, is only used with Resource Persons and after the initial pool has been developed. On it the Resource Person or Resource Analyst records the necessary information for Orientation activities. It calls for brief descriptions of the knowledge and skills a student could acquire, the prerequisites, the types of activities available (such as discussions, observation, or working with equipment), when the RP is available, and how many students the RP can work with.

Item 5: Resource Exploration Approval

Students fill out this form when they want to engage in Exploration-level activities with a resource. It helps maintain a check on resource utilization so that resources do not become overloaded. It also is the mechanism for notifying the Resource Analyst that the resource should be analyzed for learning activities if a detailed Resource Guide has not yet been developed.

Item 6: Resource Site Analysis Worksheet

The Resource Analyst may use this form when conducting site analysis interviews. The form provides hints and recording space for collecting the information needed to develop a Resource Guide.

Item 7: Resource Site Analysis Interview Checklist

The Resource Analyst or other EBCE staff member may use this form when conducting a site analysis interview. It reminds the interviewer of the major points about EBCE that should be conveyed to the resource and the kinds of information about the resource that should be obtained. It is a working tool only and does not have to be completed or filed.

Item 8: Resource Guide

After completing a development interview with an RP or one or more individuals at an RO, the Resource Analyst writes a Resource Guide. The Guide describes activities agreed upon by the Resource Analyst and the resource, and includes any prerequisites for student participation, suggestions for other resources to visit, related reading, and project activities. See Appendix 4 for guidelines for writing Resource Guides. See pages 35 through 43 for sample Resource Guides.

Item 9: Resource Contact Report — Student Assessment

The Learning Coordinator completes one of these forms after a phone call or personal visit to a Resource Person or individual at a Resource Organization who is working with one of his students. The form is used to record the Learning Coordinator's and resource's observations about the student's learning and activities at the site. This includes checking the student's progress toward his project goals and identifying problems the resource may be facing in helping the student achieve those goals. There should be at least two reports per student project: one for the Learning Coordinator's phone call or visit before a student has finished his project goals, and one after the student has completed his project goals. These reports go in the student's file. If the resource is having problems, the Resource Analyst can be called in to help the LC and the resource resolve them.

Item 10: Request for Resource

A student completes this form when he is interested in a career, a subject, or an issue for which there are no developed resources. The student states the reason for his request, the learning activity level he would like to engage in, and his suggestions (if any) for potential resources to contact. After his Learning Coordinator reviews and approves the request, it is forwarded to the Resource Analyst. If the Resource Analyst can immediately fill the student's request, he notes the results on the form, sends copies to the student and the LC, and retains one for his files. If additional action is required, the Resource Analyst records the action taken thus far and its outcome on the form, notifies the student and the LC orally or by note, and completes the form either when the request is filled or he is unable to fill it. The form should be returned to the student and LC only after final action has been taken.

Item 11: Student-Recruited Resource

When a student recruits a resource, he completes this card and has the resource sign it. The card is then forwarded to the Resource Analyst for follow-up. On the reverse side of the card is a statement to the new resource listing the Resource Analyst's phone number and informing him of the follow-up action that will occur. This card is filed by the Resource Analyst.

Item 12: Resource Maintenance Contact Report

This form is used by the Resource Analyst to record the nature and purpose of maintenance contacts with resources. Contact may be initiated by the resource, a Learning Coordinator, a student, or the Resource Analyst; it may be simply routine or in response to a problem. Subsequent action taken by the Resource Analyst is also documented on this form. When appropriate, a copy is sent to the Learning Coordinator for his information.

Exhibit 5
Forms Used in the Resource Information System

ITEM	FORM TITLE	COMPLETED BY	WHEN COMPLETED	DISTRIBUTION
1	Student's Initial Planning Worksheet	Student	At the beginning of each school year	Learning Coordinator, Resource Analyst
2	Resource Contact Card	Resource Analyst	After initial contact with potential resource or contacts resulting in status change	Appropriate file *(active, unconfirmed, inactive)*
3	Resource Log	Resource Analyst	After recruitment of resource	Resource Analyst
4	Resource Information Sheet	Resource Analyst or Resource Person	After recruitment of Resource Person	Alphabetical resource file *(10-20 copies)* Resource Person *(1 copy)*
5	Resource Exploration Approval	Student, approved by Learning Coordinator	After Orientation but before Exploration or Investigation	Resource Analyst
6	Resource Site Analysis Worksheet	Resource Analyst	During site analysis interview *(optional)*	Resource Analyst
7	Resource Site Analysis Interview Checklist	Resource Analyst	During site analysis interview *(optional)*	Resource Analyst
8	Resource Guide	Resource Analyst	After site analysis interview	Alphabetical resource file *(10-20 copies)* Resource Person *(1 copy)*
9	Resource Contact Report - Student Assessment	Learning Coordinator	After any resource contact involving individual student assessment. At least once after the student's project goals and indicators have been specified; again after completion of project goals.	Student's file
10	Request for Resource	Student, approved by Learning Coordinator and Resource Analyst after final action has been taken	When student desires type of resource not available in resource pool	Learning Coordinator, Resource Analyst, Student
11	Student-Recruited Resource	Student, signed by resource and Learning Coordinator	Upon recruitment of resource	Resource Analyst, who follows up with an interview
12	Resource Maintenance Contact Report	Resource Analyst	After maintenance contact	Resource Analyst, Learning Coordinator [illegible]

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Item 1

Experience-Based Career Education	STUDENT'S INITIAL PLANNING WORKSHEET	*Page 1*

STUDENT GRADE

LEARNING COORDINATOR DATE

1. Have you identified any specific career(s) you would like to know more about?

☐ YES ☐ NO If YES, state the career(s) of interest:

2. Do you presently have plans to pursue or begin training in any career(s) after you finish high school? Which one(s)?

3. If you DO plan to pursue or begin training for a specific career after you finish high school, please list the things you have to do before you can actually begin work in your chosen career.

4. While you are enrolled in EBCE, you will be able to explore careers by spending time on the job with people engaged in various careers. In one type of experience you will spend time with a person DISCUSSING his/her career or job. In another type of experience you will spend additional time with that person and learn to do and PARTICIPATE in some of the things that person does as part of his/her job. Please write in the career(s) in which you have an interest in the space below, and check the kind of experience you would like to pursue for the career(s) you have selected. (NOTE - Your indication of "interest" will NOT commit you to these experiences.)

Occupation/Job	Kind of Experience	
	Discussion	Participation

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STUDENT'S INITIAL PLANNING WORKSHEET	*Page 2*

5. *If you plan to continue your formal education after you finish high school, check [✓] the level of education you hope to achieve and (if possible) list the name of the institution you are planning to attend.*

- ☐ Junior College ____________________
- ☐ State University ____________________
- ☐ Private College or University ____________________
- ☐ Business School ____________________
- ☐ Vocational/Trade School ____________________
- ☐ Apprenticeship ____________________
- ☐ Graduate or Professional School ____________________
- ☐ Company Training Program ____________________
- ☐ Other (specify) ____________________

6. *What subjects and social issues are of particular interest to you?*

7. *Please check any of the following areas in which you would like to have extra help while you are in EBCE:*

- ☐ Reading
- ☐ Mathematics
- ☐ Writing
- ☐ Expressing Yourself
- ☐ Meeting and Dealing with People
- ☐ Study Habits
- ☐ Health and Fitness
- ☐ Other (specify)

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STUDENT'S INITIAL PLANNING WORKSHEET	STUDENT:	*Page 3*

8. *What are your favorite leisure activities? Why?*

9. *What social and/or recreational activities would you like to be a part of, especially those which could include other EBCE students? What team activities would you like to be a part of?*

10. *What else do you think your Learning Coordinator should know about you, your goals, interests, or needs?*

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Item 2

Experience-Based Career Education	RESOURCE PERSON CONTACT CARD	LOG NO.

CAREER FAMILY ____________

RESOURCE PERSON ______________________________ M __ F __ Age ____

TITLE ______________________________ B W A SS NA *(Circle One)*

ORGANIZATION ______________________________ [ ] Non-Profit [ ] Commercial

ADDRESS ______________________________ Size of Organization: [ ] < 10
[ ] 10-50
[ ] > 50

TELEPHONE ______________

CONTACTED BY ______________________________ DATE ____________________

COMMENTS: *(Please initial and date your comments)*

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Experience-Based Career Education	RESOURCE ORGANIZATION CONTACT CARD	LOG NO.

CAREER FAMILY ____________

RESOURCE ORGANIZATION ______________________________ [ ] Non-Profit [ ] Commercial

ADDRESS ______________________________ Size of Organization: [ ] < 10
[ ] 10-50
[ ] > 50

TELEPHONE ______________

RO COORDINATOR ______________________________ TITLE ____________________

CONTACTED BY ______________________________ DATE ____________________

COMMENTS: *(Please initial and date your comments)*

FWL-EBCE Rev. 12/75

Item 3

Experience-Based Career Education

RESOURCE LOG

LOG NO.	NAME OF ORGANIZATION	CONTACT IN ORGANIZATION												NUMBER OF EMPLOYEES IN ORGANIZATION			TYPE OF ORGANIZATION **		PACKAGE	GUIDE		CAREER FAMILY	IF DROPPED, REASON & DATE	[illegible]
		NAME	SEX		AGE				ETHNIC GROUP*															
			M	F	<30	30-39	40-49	>50	B	W	A	SS	NA	<10	10-50	>50	C	NP		Info Sheet	Final			

* B = Black, W = White, A = Asian, SS = Spanish-speaking/surname, NA = Native American ** C = Commercial, NP = Non-Profit

[illegible]

Item 4

Experience-Based Career Education	RESOURCE INFORMATION SHEET	NO.

EBCE students work with people in the community in planning and carrying out projects through which they simultaneously explore careers, acquire useful skills and earn their academic credits. If you are willing to serve as a resource, please complete this form and return it to the school. Students will use this information to select Resource Persons to contact, so please be as specific as possible about what students can learn and do. Use an additional page if necessary.

NAME ______________________ TITLE ______________________

COMPANY/ORGANIZATION ______________________

ADDRESS ______________________

PHONE __________ BEST HOURS TO CALL __________ HOURS AVAILABLE TO STUDENTS __________

TYPE OF ORGANIZATION: [ ] *Non-profit* [ ] *Commercial* NO. OF EMPLOYEES __________

NATURE OF BUSINESS: ______________________

____

WHAT KINDS OF KNOWLEDGE OR SKILL CAN A STUDENT ACQUIRE BY WORKING WITH YOU? *(Include academic areas, if appropriate.)*

____

____

____

ACTIVITIES AVAILABLE TO STUDENTS *(please check)*:

- [ ] *Discussions*
- [ ] *Observation*
- [ ] *Attend staff meetings*
- [ ] *Attend professional or union meetings*
- [ ] *Participation:*
  - [ ] *Sample tasks*
  - [ ] *Actual tasks*
  - [ ] *Operating equipment:* __________

BASIC SKILLS WITH WHICH YOU CAN ASSIST THE STUDENT *(please check)*:

[ ] *Reading* [ ] *Oral communications* [ ] *Writing* [ ] *Mathematics*

PREREQUISITES *(if any)*: ______________________

ARE YOU AVAILABLE TO GUEST-LEAD STUDENT DISCUSSION GROUPS AT THE SCHOOL?

[ ] *Yes* [ ] *No*

AREAS OF SPECIAL KNOWLEDGE, INTEREST, OR SKILL NOT NOTED ABOVE WHICH STUDENTS CAN SHARE, INCLUDING LEISURE ACTIVITIES, IF APPROPRIATE:

____

____

HOURS PER WEEK YOU ARE AVAILABLE TO STUDENTS ______________________

NUMBER OF STUDENTS YOU CAN WORK WITH AT ONE TIME ______________________

CONTACTED BY ______________________ DATE __________
(EBCE student or staff member)

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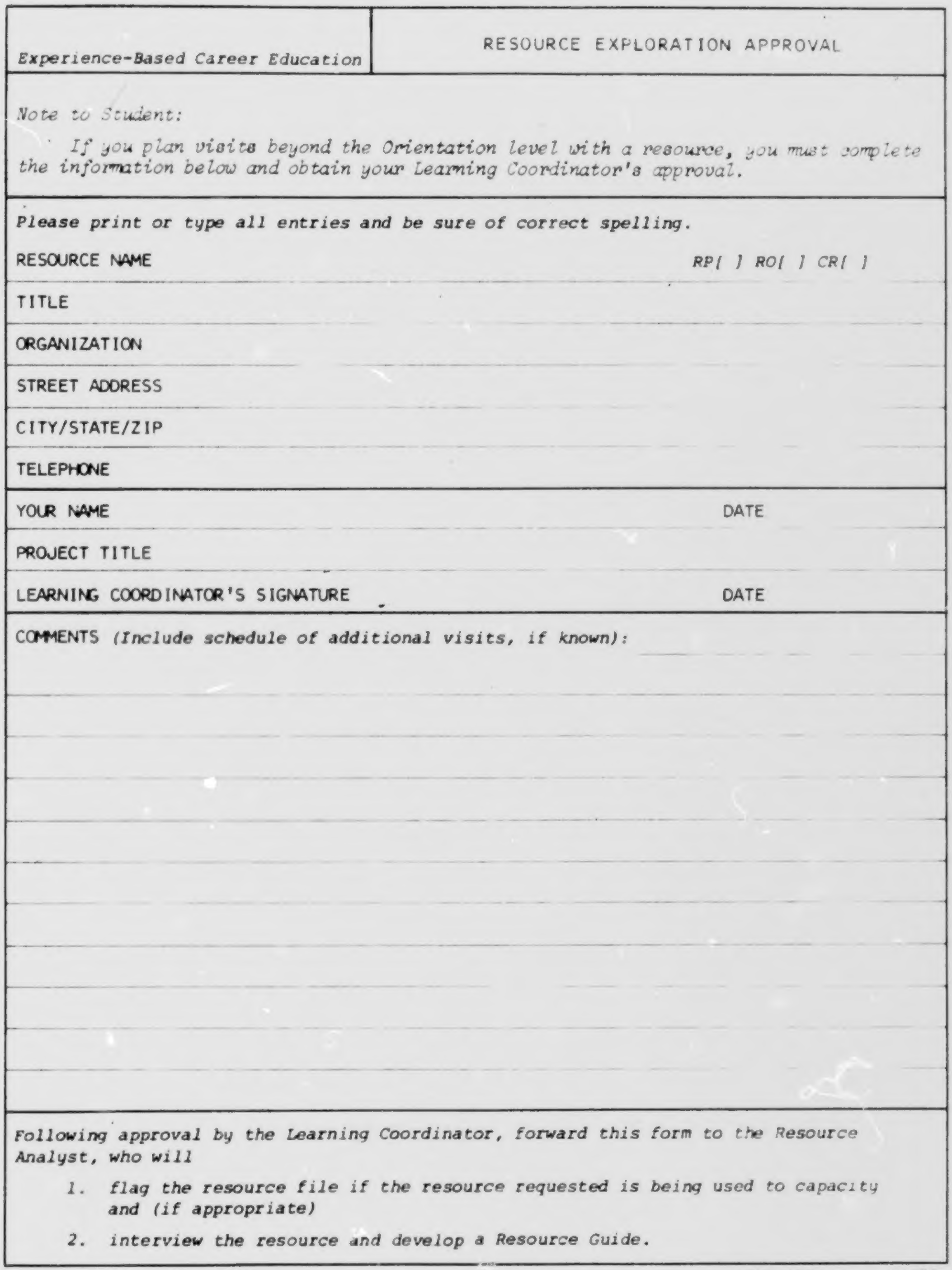
Item 5



Experience-Based Career Education

RESOURCE EXPLORATION APPROVAL

Note to Student:

If you plan visits beyond the Orientation level with a resource, you must complete the information below and obtain your Learning Coordinator's approval.

Please print or type all entries and be sure of correct spelling.

RESOURCE NAME *RP[ ] RO[ ] CR[ ]*

TITLE

ORGANIZATION

STREET ADDRESS

CITY/STATE/ZIP

TELEPHONE

YOUR NAME DATE

PROJECT TITLE

LEARNING COORDINATOR'S SIGNATURE DATE

COMMENTS *(Include schedule of additional visits, if known):*

Following approval by the Learning Coordinator, forward this form to the Resource Analyst, who will

1. *flag the resource file if the resource requested is being used to capacity and (if appropriate)*
2. *interview the resource and develop a Resource Guide.*

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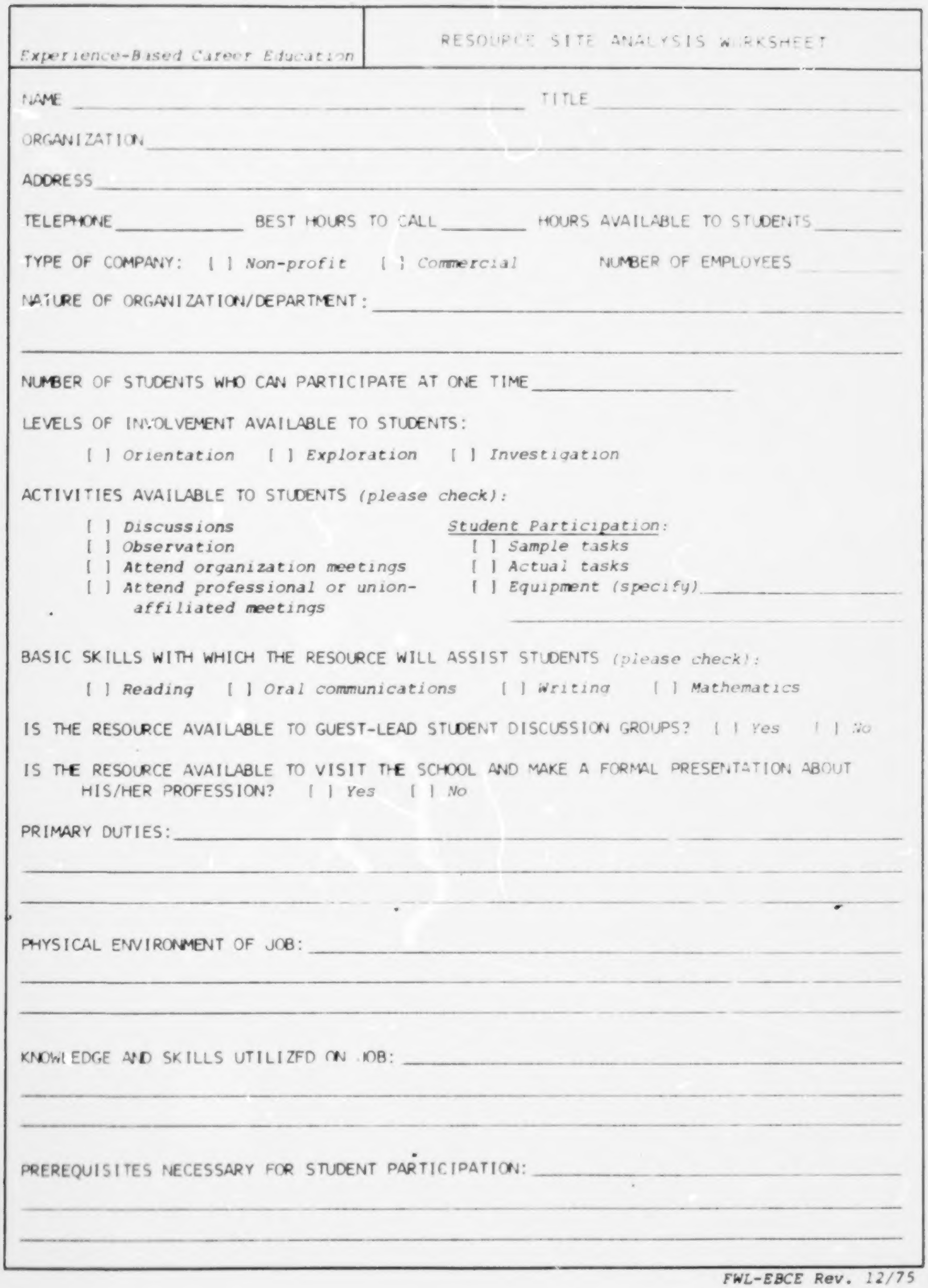
Item 6



Experience-Based Career Education

RESOURCE SITE ANALYSIS WORKSHEET

NAME ______ TITLE ______

ORGANIZATION ______

ADDRESS ______

TELEPHONE ______ BEST HOURS TO CALL ______ HOURS AVAILABLE TO STUDENTS ______

TYPE OF COMPANY: ☐ *Non-profit* ☐ *Commercial* NUMBER OF EMPLOYEES ______

NATURE OF ORGANIZATION/DEPARTMENT: ______

NUMBER OF STUDENTS WHO CAN PARTICIPATE AT ONE TIME ______

LEVELS OF INVOLVEMENT AVAILABLE TO STUDENTS:

☐ *Orientation* ☐ *Exploration* ☐ *Investigation*

ACTIVITIES AVAILABLE TO STUDENTS *(please check)*:

- ☐ *Discussions*
- ☐ *Observation*
- ☐ *Attend organization meetings*
- ☐ *Attend professional or union-affiliated meetings*

Student Participation:

- ☐ *Sample tasks*
- ☐ *Actual tasks*
- ☐ *Equipment (specify)* ______

BASIC SKILLS WITH WHICH THE RESOURCE WILL ASSIST STUDENTS *(please check)*:

☐ *Reading* ☐ *Oral communications* ☐ *Writing* ☐ *Mathematics*

IS THE RESOURCE AVAILABLE TO GUEST-LEAD STUDENT DISCUSSION GROUPS? ☐ *Yes* ☐ *No*

IS THE RESOURCE AVAILABLE TO VISIT THE SCHOOL AND MAKE A FORMAL PRESENTATION ABOUT HIS/HER PROFESSION? ☐ *Yes* ☐ *No*

PRIMARY DUTIES: ______

PHYSICAL ENVIRONMENT OF JOB: ______

KNOWLEDGE AND SKILLS UTILIZED ON JOB: ______

PREREQUISITES NECESSARY FOR STUDENT PARTICIPATION: ______

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RESOURCE SITE ANALYSIS WORKSHEET

WHAT WILL THE RESOURCE DISCUSS WITH STUDENTS?

WHAT CAN STUDENTS OBSERVE?

OTHERS AT SITE WITH WHOM STUDENTS CAN MEET OR WORK:

THINGS A STUDENT CAN DO:

Without prerequisites

With basic skills competence

With job specific skills (e.g., typing)

HOW CAN A STUDENT DEVELOP SKILLS WHICH WILL ENABLE HIM TO PARTICIPATE AT THIS SITE?

RELATED READING:

RELATED RPS, ROS, OR CRS:

PERSONAL DATA AS APPROPRIATE AND RELEVANT:

Previous education and experience

Hobbies and avocational interests

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Item 7

Experience-Based Career Education	RESOURCE SITE ANALYSIS INTERVIEW CHECKLIST

The site analysis is an informal discussion between EBCE staff and the potential Resource Person, or Resource Organization representative, rather than a structured interview. Its purpose is threefold: (1) to ensure that the resource understands the EBCE concept and operations and to answer questions of the potential Resource Person or Resource Organization; (2) to determine the ways the resource is willing and able to assist; and (3) to provide a subjective evaluation by the EBCE staff member of the most effective ways the resource can participate.

Before closing the interview, review this checklist and pursue items not yet adequately covered with the resource.

I. INFORMATION TO BE CONVEYED

A. Program Concepts

☐ Understands broad concept of career education as "learning for life"; that "career" is broadly defined as one's life path.

☐ Understands EBCE is a program of comprehensive, personalized learning based on experience in diverse sectors of the community.

☐ Understands how Resource Persons and Organizations contribute to student learning.

☐ Understands how real-life experiences provide most of the students' learning activities, with supplementary learning activities available at the school.

☐ Understands sources and types of students (age ranges, cross section of students).

☐ Understands program goals.

B. Program Operation

☐ Understands that resources and students work together by mutual agreement.

☐ Understands that resources work with students at their normal work site.

☐ Understands that either the resource or student can terminate their activities.

☐ Understands that students self-assign themselves so that staff cannot predict when students will initiate activities.

☐ Understands the three learning activity levels: Orientation, Exploration, and Investigation.

☐ Understands EBCE staff structure and roles.

☐ Understands insurance coverage provided by the program.

☐ Understands how students plan activities and earn credit (projects, packages, Resource Guides, guidance and counseling, program planning, and evaluation of student products and performance).

☐ Understands own role in evaluation (i.e., to evaluate student behavior as well as students' performance and products as requested).

FWL-EBCE Rev. 12/75

☐ Understands that resource must be generally available to students but can determine how many students with whom he would like to work and when.

☐ Understands that EBCE staff are available to provide the resource with whatever assistance is necessary.

☐ Understands that students learn by discovery and "hands-on" experience--the greater the student interest and direct involvement, the greater the learning and retention.

☐ Knows that a Resource Guide will be forwarded for review and that the Guide provides suggested student activities and products.

II. INFORMATION TO BE ACQUIRED

☐ Obtain basic information about the Resource Person or Resource Organization, including name, organization, phone number, hours, job summary, job-related interests, special skills and abilities, what students can do, what they can observe, how many students the resource will work with, types of involvement agreed upon, special requirements, and non-job-related activities. (Use the Resource Site Analysis Worksheet or notes.)

☐ Is the information sufficient to prepare a subjective evaluation of the best use to be made of the resource?

☐ Is the information sufficient to identify any limitations, restrictions, or prerequisites for student use of this resource?

☐ Request suggestions on related reading and other information sources.

☐ Request a copy of the resource's automobile insurance coverage if students will be riding in his or her car.

☐ Is the information sufficient to develop a Resource Guide? (Close the interview with a request for permission to follow up by telephone if additional information is needed.)

Item 9

Experience-Based Career Education	RESOURCE CONTACT REPORT - STUDENT ASSESSMENT

NAME OF RESOURCE ____________________ ☐ *RP* ☐ *RO* ☐ *CR*

ORGANIZATION ____________________ PHONE __________

CONTACT MADE BY ____________________ DATE __________

NAME OF STUDENT ____________________

LEVEL OF INVOLVEMENT: ☐ *Orientation* ☐ *Exploration* ☐ *Investigation*

NUMBER OF VISITS MADE BY STUDENT ____________________

AVERAGE LENGTH OF THESE VISITS ____________________

CHECK ONE: ☐ *Personal visit* ☐ *Telephone call* ☐ *Resource visit to school*

1. HAS THE STUDENT DISCUSSED HIS OR HER PROJECT GOALS WITH YOU? ☐ *Yes* ☐ *No*
2. HAS THE STUDENT SHOWN YOU HIS OR HER PROJECT PLAN? ☐ *Yes* ☐ *No*
3. HOW WOULD YOU EVALUATE THE STUDENT'S PLANNING, PREPARATION, AND PERFORMANCE?

   ____

   ____

   ____

   WHY? ____________________

   ____

4. HAS THE STUDENT REQUESTED THAT YOU EVALUATE HIS OR HER WORK? ☐ *Yes* ☐ *No*
5. ARE YOU WILLING AND ABLE TO EVALUATE THE STUDENT'S WORK? ☐ *Yes* ☐ *No*
6. ARE THE STUDENT'S GOALS REALISTIC FOR THE TYPES OF ACTIVITIES HE OR SHE ENGAGES IN WITH YOU? ☐ *Yes* ☐ *No*

   (IF NOT, PLEASE EXPLAIN.) ____________________

   ____

   ____

7. WHAT RECOMMENDATIONS WOULD YOU LIKE TO MAKE AT THIS TIME, IF ANY?

   ____

   ____

   ____

8. WHAT HELP WOULD YOU LIKE FROM OUR STAFF AT THIS TIME, IF ANY?

   ____

   ____

   ____

   ____

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RESOURCE CONTACT REPORT - STUDENT ASSESSMENT	*Page 2*

9. LEARNING COORDINATOR'S COMMENTS: *(List what you think the student is learning, problems that need attention, strategies you and the resource agree upon for working with the student, and so on.)*

FWL-EBCE Rev. 12/75

Item 10

Experience-Based Career Education

REQUEST FOR RESOURCE

1. STUDENT ______________________ DATE OF REQUEST ______________

2. CAREER, SUBJECT, OR SKILL AREA IN WHICH RESOURCE IS NEEDED ______________

3. REASON DESIRED: [ ] *Career study* [ ] *Personal interest*
[ ] *Graduation requirement* [ ] *Other (specify)* ______________

4. INVOLVEMENT LEVEL DESIRED: [ ] *Orientation* [ ] *Exploration* [ ] *Investigation*

5. SUGGESTED RESOURCES OR CONTACTS: ______________

6. STUDENT'S SIGNATURE ______________________ DATE ______________

7. LC APPROVAL ______________________ DATE ______________

8. ACTION TAKEN: *(Date and initial each entry.)* ______________

9. RESOURCE ANALYST ______________________ DATE ______________
(signature)

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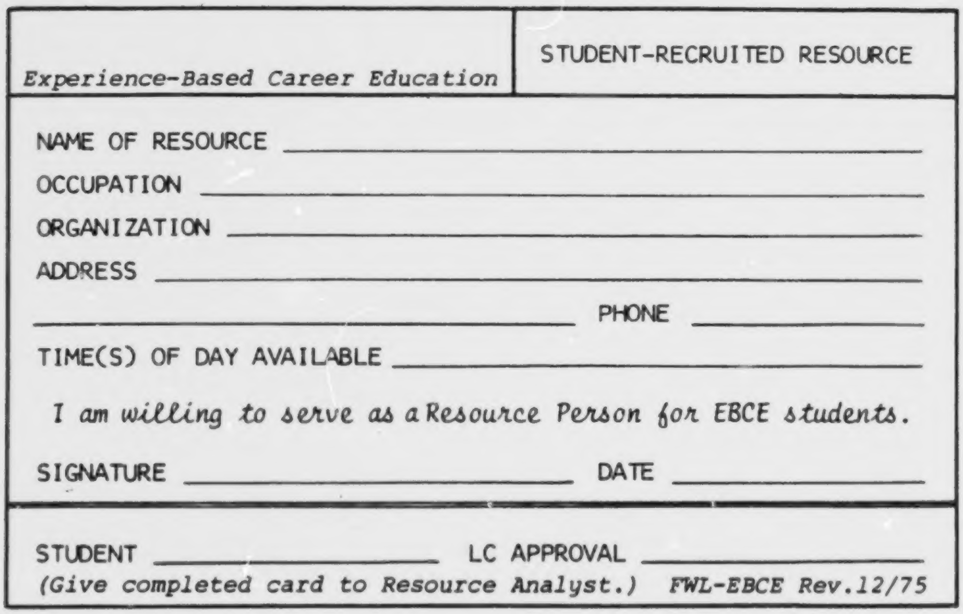
Distribution: After approval, LC holds Goldenrod (suspense copy) and forwards rest of set to Resource Analyst. After completing required action, Resource Analyst retains Original (White) and returns Yellow to student and Pink to LC.

Item 11

FRONT



Experience-Based Career Education

STUDENT-RECRUITED RESOURCE

NAME OF RESOURCE ____________________

OCCUPATION ____________________

ORGANIZATION ____________________

ADDRESS ____________________

____________________ PHONE ____________

TIME(S) OF DAY AVAILABLE ____________________

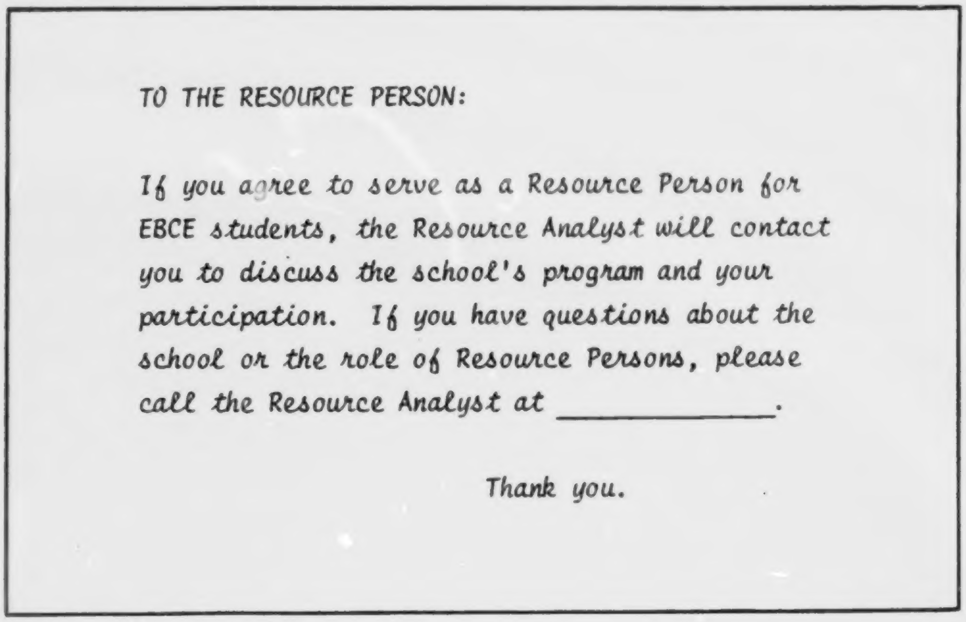
I am willing to serve as a Resource Person for EBCE students.

SIGNATURE ____________________ DATE ____________

STUDENT ____________ LC APPROVAL ____________

(Give completed card to Resource Analyst.) *FWL-EBCE Rev.12/75*

REVERSE



TO THE RESOURCE PERSON:

If you agree to serve as a Resource Person for EBCE students, the Resource Analyst will contact you to discuss the school's program and your participation. If you have questions about the school or the role of Resource Persons, please call the Resource Analyst at ____________.

Thank you.

Item 12

Experience-Based Career Education	RESOURCE MAINTENANCE CONTACT REPORT

RESOURCE NAME ______________________ [ ] *RP* [ ] *RO* [ ] *CR* DATE __________

ORGANIZATION ______________________ DATE OF LAST CONTACT __________

CONTACTED BY *(staff member)* ______________________ METHOD *(phone, visit)* __________

CONTACT INITIATED BY ______________________ REASON __________

CHANGES *(address, phone, hours, etc.)* ______________________

Record numbers of students participating in activities at the resource site. ➡

STUDENT PARTICIPATION AT RESOURCE SITE		
Period: *Beginning*	*Ending*	
Activity Level	Completed	Continuing
Orientation		
Exploration		
Investigation		

POSITIVE COMMENTS: ______________________

NEGATIVE COMMENTS: ______________________

REQUESTED ASSISTANCE AND/OR SUGGESTIONS: ______________________

ACTION NEEDED: ______________________ DATE ACTION TAKEN __________

See reverse side for suggested discussion topics.

FWL-EBCE Rev. *12/75*

RESOURCE MAINTENANCE CONTACT REPORT - *Suggested Discussion Topics* | *Page 2*

WHAT ACTIVITIES DOES THE RESOURCE NORMALLY ENGAGE IN WITH STUDENTS? *For example:*

- *discussions about his career field*
- *helping students evaluate their interests and abilities in the career field*
- *discussing issues or subjects*
- *helping students plan projects*
- *providing students with opportunities to observe work activities and explaining them*
- *providing students with opportunities to participate in work activities*
- *teaching students specific tasks and/or training them in career-related skills*
- *helping students identify other information sources*
- *evaluating student work*

WHAT KINDS OF PROJECTS DO STUDENTS WORK ON? *For example:*

- *project focus (issue, problem, subject, or career)*
- *significance*
- *relevance of student projects to resource's career field and/or interests*

WHAT DO STUDENTS LEARN? *For example:*

- *skills -- problem-solving, interpersonal, inquiry, basic, job-related, or other skills*
- *career knowledge -- advantages and disadvantages of the career, entrance routes, entrance requirements, job outlook, structure and function of the organization, job-hunting information, significant problems facing workers in the field*
- *subject knowledge -- facts, concepts, relationships, principles, terms*

DID THE RESOURCE OBSERVE CHANGES IN STUDENTS' BEHAVIOR? *For example:*

- *increased self-confidence*
- *punctuality*
- *assumption of responsibility*
- *ways of dealing with people*
- *dependence/independence*

HAS THE RESOURCE RECEIVED ADEQUATE FEEDBACK ABOUT STUDENTS? *For example:*

- *Does the resource know what students learned from their experiences?*
- *Has the resource seen student products?*

HAS THE RESOURCE RECEIVED ADEQUATE ASSISTANCE FROM SCHOOL STAFF? *For example:*

- *explanation of EBCE concepts, goals, philosophy, or assumptions about education*
- *school procedures*
- *suggestions on how to work with students*
- *control over numbers of students calling*
- *materials*

DOES THE RESOURCE DESIRE OTHER TYPES OF CONTACT WITH SCHOOL STAFF AND/OR OTHER RESOURCES? *For example:*

- *workshops for exploring ways to communicate with students*
- *methods of encouraging students to think independently, assume responsibility, or develop skills*

Whenever appropriate, request specific examples.

FWL-EBCE Rev. 12/75

Appendix 6

Open Your World to Students

With your help, the doors can be opened to a variety of learning opportunities within the community where students can have an early exposure to the world outside school. Instead of confining students within the classroom, Experience-Based Career Education (EBCE) gives them firsthand experience with adults working in the community, making decisions, performing tasks, and coping with the day-to-day problems of living. As one adult who has worked with students in the program explains:

> "That's how I learned, by people taking an interest in me and showing me how to do things. Working with young people keeps you in touch with an important part of yourself, and even gives you a better understanding of your own job."

What Is Experience-Based Career Education?

In EBCE the role of adults -- both community participants and EBCE staff -- is to help students become adults, to help them learn how to learn, to think for themselves, make decisions, solve problems, work with others, keep their commitments, and seek guidance and assistance when they need it. A variety of competent adults in the community, with diverse backgrounds and expertise, act as colleagues in the educational process, serving as models and sharing their skills and knowledge with students.

- EBCE is career-oriented. Because occupational choices play a powerful role in shaping our sense of identity, self-esteem, and lifestyle, a focus on career preparation should be an integral part of a person's education. Since "career" is defined broadly as "one's progress through life" and not as a particular job, the EBCE notion of career preparation means providing students with a cumulative series of planned, personalized learning experiences in a wide variety of life/work settings.

- EBCE is experience-based. The focus on direct experience in the community enables students to: improve the basic skills of reading, writing, and computation by using them to solve real problems in everyday life; learn traditional subject matter in new ways; integrate learning in ways not possible in the traditional classroom; and, while developing academic skills and career awareness, learn how to deal with people in worlds as different as the auto shop, the advertising office, and the science laboratory.

- EBCE is student-centered. The student acts as planner, decision-maker, and self-evaluator within the general framework of EBCE goals and procedures.

EBCE offers something for many students in American high schools today. It is a voluntary alternative program of full-time learning, resulting in an accredited high school diploma. Students who graduate can enter college or training programs, or seek employment. EBCE is for:

- the student who has only vague notions of the "real world" and would like to explore career options through direct experience;
- the student who is "turned off" by the traditional classroom and doesn't see how most of his courses relate to his life; and
- the college-bound student who wants to explore optional career choices before setting out on a post-secondary program of study.

Since the program is a part of the public school system, there are no tuition or other costs to the students.

How Can You Help?

The key to the program's success is the Resource Person (RP) -- an adult like yourself who is willing to share knowledge, skills, and experience with interested students. A variety of Resource Persons work with students: newspaper editors, laboratory technicians, radio engineers, social workers, sportswriters, machinists, salespeople, business executives, clerks, city officials, carpenters, etc. More RPs in all occupational fields are needed. If you volunteer as an RP, EBCE staff members will meet with you to identify the kinds of learning activities you could share with students. Your relationship with a student is voluntary and its terms and duration are negotiated by you and the student. You could spend a single afternoon or several months with a student, depending on your available time and the student's needs and interests.

Your role as a Resource Person could be that of teacher, supervisor, counselor, and friend. Some things you could do are:

- Share your occupational or professional knowledge, skills, and abilities. For example, a manager of a bookstore shares her knowledge of books and business operations with students.
- Identify jobs similar to yours but requiring different experience, education, training, or skills. A nurse helps students understand the variety of careers available in the health sciences, including the careers of doctor, nurse's aide, and laboratory technician.
- Explain the organizational structure of your company and the different jobs within it. A president of a small bank familiarizes students with banking and the relationship of jobs and employees within the bank.
- Share your leisure interests and hobbies. One RP brings students into his hobbies -- lasers, stereos, cars, and archery.

- Help students match their interests and abilities with knowledge of job requirements and benefits. A certified public accountant discusses with students accounting as a career, the different job specializations within accounting, the required training, and some job benefits which accountants enjoy.

- Help students use and expand their reading, writing, and math skills while working with you. A chemist helps students develop their math skills as they help him prepare laboratory reports.

- Give students responsible, productive, and educational tasks or assignments. A designer of machinery and electronics equipment helps qualified students design and construct their own pieces of equipment.

- Help students meet, talk with, and work with other people where you are employed. One RP introduces students to the employees and different departments within his commercial printing firm. Students can then decide what aspect of printing they would like to study in detail.

These suggestions, plus many more that you, EBCE staff, and students can compile, will be organized into three levels of student involvement.

§ An initial Orientation (approximately 1 to 9 hours) acquaints students with yourself, your career and job, or your organization. Activities might include guided tours, question-and-answer sessions, and meetings with staff engaged in daily routines.

§ An Exploration (approximately 10 to 40 hours) enables students to get an overview of a subject, issue, or career. Explorations are defined more by their purpose (to acquire a breadth of knowledge) than their length -- a student could do an Exploration lasting 100 hours. Students are required to develop project plans and provide tangible results of their Explorations: research reports, oral descriptions of occupations and professions, photographic essays, or other means of communicating what they learned.

§ Investigations (more than 40 hours) enable students to engage in in-depth learning activities which might include on-site training or intensive personal involvement in performing productive tasks and assignments, plus extensive study of related materials. Students can go to an Investigation directly from an Orientation if they wish. They are also required to develop projects and produce tangible results of their Investigations.

As a Resource Person, you could be involved with students at one or more of these levels depending on your interests and available time. An EBCE staff member will discuss this with you before you meet a student.

The success of EBCE provides long-range advantages to students, employers, educators, and the community -- young people better educated to fill entry-level jobs, enter training programs, advance in their occupational roles, or enter college with a full understanding of their own goals. EBCE offers some additional advantages to you as a volunteer Resource Person:

- As a concerned adult, you can exert a positive influence on the lives of young people by helping them with their education and career choices.
- You can help break down the "generation gap" through your day-to-day exchange of opinions, values, and viewpoints with students.
- Involvement in EBCE is an opportunity for your personal growth. As you share your skills, experiences, and knowledge with a student, you can learn more about yourself.
- You can gain the satisfaction that comes from helping a student learn about himself and others, and about how to live and work in the world outside of school.
- You can utilize the resources of the EBCE program to develop your own interests, as a part of or apart from your job.

If you would like to learn more about EBCE, or become part of this program, please fill out the attached form, fold it, and put it in the mail. A member of the EBCE staff will contact you to discuss your interests and the program further.

Experience-Based Career Education	RESOURCE INFORMATION SHEET	NO.

EBCE students work with people in the community in planning and carrying out projects through which they simultaneously explore careers, acquire useful skills and earn their academic credits. If you are willing to serve as a resource, please complete this form and return it to the school. Students will use this information to select Resource Persons to contact, so please be as specific as possible about what students can learn and do. Use an additional page if necessary.

NAME ______________________________ TITLE ________________________

COMPANY/ORGANIZATION ____

ADDRESS ____

PHONE __________ BEST HOURS TO CALL __________ HOURS AVAILABLE TO STUDENTS __________

TYPE OF ORGANIZATION: ☐ *Non-profit* ☐ *Commercial* NO. OF EMPLOYEES __________

NATURE OF BUSINESS: ____

____

WHAT KINDS OF KNOWLEDGE OR SKILL CAN A STUDENT ACQUIRE BY WORKING WITH YOU?
(Include academic areas, if appropriate.)

____

____

____

ACTIVITIES AVAILABLE TO STUDENTS *(please check)*:

- ☐ *Discussions*
- ☐ *Observation*
- ☐ *Attend staff meetings*
- ☐ *Attend professional or union meetings*
- ☐ *Participation:*
  - ☐ *Sample tasks*
  - ☐ *Actual tasks*
  - ☐ *Operating equipment:* ____________________

BASIC SKILLS WITH WHICH YOU CAN ASSIST THE STUDENT *(please check)*:

☐ *Reading* ☐ *Oral communications* ☐ *Writing* ☐ *Mathematics*

PREREQUISITES *(if any)*: ____

ARE YOU AVAILABLE TO GUEST-LEAD STUDENT DISCUSSION GROUPS AT THE SCHOOL?

☐ *Yes* ☐ *No*

AREAS OF SPECIAL KNOWLEDGE, INTEREST, OR SKILL NOT NOTED ABOVE WHICH STUDENTS CAN SHARE, INCLUDING LEISURE ACTIVITIES, IF APPROPRIATE:

____

____

HOURS PER WEEK YOU ARE AVAILABLE TO STUDENTS _______________________

NUMBER OF STUDENTS YOU CAN WORK WITH AT ONE TIME ____________________

CONTACTED BY ______________________________ DATE __________________
(EBCE student or staff member)

FWL-EBCE Rev. 12/75

Place
stamp
here

From: ____________________
____
____

Experience-Based Career Education
____
____
____
(Address) *(Zip)*

Attn: ____________
(Resource Analyst)

The Community is the School

EBCE: Experience-Based Career Education

The classroom–as a place to spend twelve formative years almost totally isolated from the hard knocks and earned satisfactions, the daily challenges and rewards of adult life–is a recent invention...

It is also partly responsible for the fact that adolescence today is prolonged well past the age when previous generations of Americans were assuming adult responsibilities, and for the popularity of disturbing cliches like "alienation," "dropout," and "irrelevance." These terms refer to more than textbooks and assignments that are not in tune with the times. They reflect the legitimate impatience of young people to be out and *doing* in the real world, to be taking part in the vital daily activities of our society. The so-called "generation gap" may in fact have more to do with this geographic segregation than with a separation in years–a gap between sitting in resentful dependency and being a part of the action.

To bridge this gap between school and work, between studying and experience, the Far West Laboratory has developed an educational alternative called Experience-Based Career Education (EBCE). Part of a national effort, it is an attempt to open the classroom and allow students to use the entire community as a school. Focusing on direct experience in a wide variety of real-life settings, EBCE provides students with a comprehensive secondary education in such a way that they acquire the understanding they need to choose an adult role and some of the basic skills and knowledge they need to enter and find satisfaction in work. The same learning activities that allow students to explore a broad range of careers–working closely with lawyers, printers, salespersons, arc welders, doctors, carpenters, disc jockeys, union stewards, and reporters–also provide growth in academic skills and result in an accredited high school diploma.

To some degree, EBCE is reminiscent of the apprenticeship system, that learning method by which skills, know-how, and simple human understanding used to be passed from one generation to another. It looks back to a time when young people learned primarily by being included in adult activities. Yet while seeking to revive the notion that every member of the community is a potential "teacher," EBCE is geared toward the realities of the modern world. Students anxious to study politics enter the eye-opening worlds of the courtroom, city council chamber, and police precinct house and explore issues in city government firsthand by working with attorneys, social workers, and city officials. Those interested in biology find there is more to science than the white smock and the electron microscope. Students taken by the apparently easy going life of the small crafts shopowner discover that success comes not only from creativity, but also from an understanding of bookkeeping, marketing, and the vagaries of supply and demand.

In EBCE the role of adults–both community participants and EBCE staff–is to help students become adults, to help them learn how to learn, to think for themselves, make decisions, solve problems, work with others, keep their commitments, and seek guidance and assistance when they need it. A variety of competent adults in the community, with diverse backgrounds and expertise, act as colleagues in the educational process, serving as models and sharing their skills and knowledge with students.

Key Features of EBCE

Far West's EBCE program is *career-oriented*. Because occupational choices play a powerful role in shaping our sense of identity, self-esteem, and lifestyle, a focus on career preparation should be an integral part of a person's education. Since "career" is defined broadly as "one's progress through life" and not as a particular job, the EBCE notion of career preparation means providing students with a cumulative series of planned, personalized learning experiences in a wide variety of life/work settings that:

- help students know themselves better by seeing themselves, their capabilities, and their reactions in a variety of situations, and help them develop realistic goals based on accurate appraisals of their interests, abilities, and needs;
- give them a broad understanding of the world of work–its rewards and shortcomings, what they can expect from it, and what it will require of them; and
- help them develop the decision-making skills to put the two together.

EBCE is *experience-based*. The focus on direct experience in the community enhances learning in several ways:

- Students improve the basic skills of reading, writing, and computation by using them to solve real problems in everyday life. A student interested in the auto industry quickly learns from hands-on experience that he needs to know fractions to use certain tools, or percentages to calculate production ratios and sales trends. Similarly, a student helping a public relations director prepare an advertising portfolio will see the need to improve his writing skills by being challenged to communicate on an adult level.
- Traditional subject matter can be learned in new ways: applying scientific principles in immunology at a medical laboratory, or in ecology with a naturalist at a state park, and testing out textbook abstractions through actual experience. It's one thing to read about inflation in a book on economics; it's another to take that information out into the community and find out what it means to butchers, supermarket buyers, advertisers, and consumer action agencies.
- EBCE integrates learning in ways not possible in the traditional classroom. A student perceives the interrelationship of academic, social, and occupa-

tional skills as they converge in the real-life settings of the job. Thus, a student might spend several hours a week working with a curator at the Oakland Museum on an experiment in insect behavior for science credit, while at the same time learning about the career of an entomologist, and writing a report on his project that will be evaluated for English credit.

•While developing academic skills and career awareness, these students are also learning how to deal with people in worlds as different as the auto shop, the advertising office, and the science laboratory.

EBCE is *student-centered*. The student acts as planner, decision maker, and self-evaluator within the general framework of EBCE goals and procedures. This personalized, learner-directed approach enhances learning in the following ways:

•It accommodates human uniqueness by allowing each student, to the extent possible, to pursue his particular needs and interests, at his own pace, and according to learning methods best suited to his tastes and capabilities.

•It increases motivation to learn by allowing the student to pursue genuine interests and concerns, to answer questions and solve problems he perceives as relevant.

•It allows the student to plan and carry out his own learning program; requires the student to make his own decisions, act on them, and face the consequences of those decisions; and increases self-reliance and a sense of initiative. The increasing assumption of responsibility for his own learning and perceiving himself as being "treated like an adult" foster confidence, both in himself and in the process of learning.

EBCE offers something for many students in American high schools today. It is a voluntary alternative program of full-time learning, resulting in an accredited high school diploma. Students who graduate can enter college or training programs, or seek employment. EBCE is for:

•the student who has only vague notions of the "real world" and would like to explore career options through direct experience;

•the student who is "turned off" by the traditional classroom and doesn't see how most of his courses relate to his life; and

•the college-bound student who wants to explore optional career choices before setting out on a post-secondary program of study.

The Student's Experience

When a student first enrolls at Far West, his current achievement levels, aptitudes, and interests are assessed through diagnostic tests and discussions with staff. He meets his learning coordinator (the combined teacher, counsellor and advisor) who will help guide and evaluate his learning experiences. Together they determine the student's general areas of strength and weakness, and decide what credits he will need for graduation from the Oakland Public Schools. The student learns that this personal inventory does not occur just once or even a few times a year, but that it is part of an on-going process that is crucial to education and life itself. The learning coordinator talks with the student about his plans for further education or a career after high school. Together they set up long-range educational goals and a general timetable for achieving them.

The Far West staff works with employers and resource people to identify rich learning experiences, to plan and structure a sequence of learning activities, determine specific objectives and the means of judging when and how well they have been met. The school site provides a place where students can compare, share, and evaluate their experiences in group workshops, work with basic skills specialists, and arrange for tutors or classes in local junior colleges to meet science and foreign language requirements. But while the school site can be a good place to digest experiences and get assistance, the process at the heart of Experience-Based Career Education takes place in the community.

Some students have well-developed ideas of what it is they want to learn and how they plan to go about it, but most begin their experiences by consulting the "learning packages." The "package" lists participating community organizations, businesses and individuals, grouping them according to combined career and subject areas (e.g., Commerce, Communications and Media, Biology, Politics). The "package" lays out goals and activities in such a way as to insure that students will immediately be able to see possible points of entry to the community and not have to start from scratch.

It is the relationship between the student and the resource person with whom he works that is at the core of the EBCE learning experience. The resource person is a volunteer adult who is willing to share his seasoned knowledge, skills and experience with interested students. The association with the student is negotiable in terms of objectives, scope, and duration, depending on the resource person's availability and the student's interests and needs.

After being oriented to a job site, becoming somewhat knowledgeable about its operation, and perhaps having a taste of firsthand experience, the student and the resource person (with the assistance of the learning coordinator) decide on a project. Every student designs and completes one or more projects for each learning package he enters. The project is the means by which the student applies and demonstrates mastery of basic skills by gathering and evaluating information, performing on-site tasks, and finally reporting his experiences. The project results in some kind of tangible product: a report or essay, a short story or film, a physical model, slide presentation, or some other similar demonstration of competence. Along with his learning coordinator and resource person the student helps decide the focus of the project, specifying the objectives of his work with the resource person and spelling out the terms by which his performance will ultimately be evaluated. By helping manage his education and monitoring his own progress, the student finds strategies for learning that remain long after formal schooling is over.

Like the other programs that are part of this National Institute of Education pilot project, Far West School has gradually made the transition from experiment to proven educational alternative. It is difficult to freeze the motion of a program like EBCE in order to subject it to methods of evaluation used for the conventional classroom. Yet Far West students have scored as well as those students in regular high schools in achievement tests and other traditional indicators. There is unfortunately no way to calculate the degree of maturity and self-confidence gained from working successfully and effectively in the community, but some 9 out of 10 students who have graduated from the program (along with a similar proportion of their parents) agree that they have made their greatest strides in the area of personal development.

Keith Goldhammer, Dean of the College of Education at Michigan State University, who spent time studying Far West School as part of a general inquiry into Experience-Based Career Education, later noted: "Somebody once wrote, 'I have seen the future and it works!' I think that is how I felt as I had this opportunity to see the EBCE programs in operation." Far West may or may not be a prototype for the school of the future. But it has succeeded in closing the gap between learning and living that distresses so many students. It has shown that students who are given a chance to develop the competence, understanding, and knowledge needed to be effective adults leading effective lives can find school exciting and valuable.

The Far West Laboratory for Educational Research and Development is a public non-profit organization located in the San Francisco Bay Area and is supported in part by the Department of Health, Education, and Welfare. The Far West EBCE project is part of a national program funded by the National Institute of Education.

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7. Package Development

Package Development

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January 1976

Experience-Based Career Education Program
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This handbook was created by the FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT under contract to the National Institute of Education (NIE). The opinions expressed here do not necessarily reflect the opinion of NIE nor endorsement by any other government agency.

Far West Laboratory was established through a Joint Powers Agreement in February, 1966. Signatories, as of January, 1976, include the Regents of the University of California; the California State Board of Education; the Trustees of the California University and State Colleges; the Board of Education of the San Francisco Unified School District; the Regents of the University of Nevada; the Nevada State Board of Education; the Board of Regents of the University of Utah; and the Utah State Board of Education.

The Laboratory's mission is to carry out surveys, research, development, and demonstrations in education and to disseminate information derived from such activities; accompanying programs of teacher, administrator, and parent education are also a focus of the Laboratory's work. Programs conducted by the Laboratory are intended to offer a clear and firm prospect of being implemented by schools and other educational agencies. In the course of these efforts, the aim is to assure that the evaluated outcomes of research and development are presented effectively to schools and other educational agencies.

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Table of Contents

Page

INTRODUCTION 1

THE FUNCTION OF PROJECT PLANNING PACKAGES 1

PACKAGE CAREER/SUBJECT AREAS 4

ADAPTING FAR WEST PACKAGES TO LOCAL NEEDS 6

DEVELOPING A PACKAGE 6

- Determining Package Goals 7
- Deciding Which Resources to Use 14
- Drafting the Package 15
  - Sample Projects 16
  - Annotated List of Resources 20
  - Statement About Project Seminars 21
  - Guidelines for Planning and Completing a Project 21
  - Additional Package Sections 22
- Reviewing, Revising, and Approving the Package 23

USING PACKAGES 24

- Introducing Packages 24
- Staff Roles 24
- Student Use of Packages 26
- Project Seminars 27

FORMATIVE EVALUATION AND REVISION OF PACKAGES 29

APPENDICES

1 - Purpose of Packages: Goals and Objectives 31
2 - Considerations in Identifying Potential Packages 33
3 - Standard Statement on Project Seminars 35
4 - Standard Statement on Planning and Completing a Project 37
5 - Sample Statement on Careers for Exploration 41
6 - Sample Statement on Course Equivalencies 43

List of Exhibits

Page

Exhibit 1: Developing Package Goals 9

Exhibit 2: Summary of Package Content Goals 10

Exhibit 3: Examples of Student Project Goals and Indicators 19

Introduction

This handbook explains what a project planning package is, how it is developed, and the ways students and staff use it to carry out effective learning programs. It assumes that you are already familiar with the concept of Experience-Based Career Education (EBCE) as described in the Program Overview and understand how the instructional system works.

Obviously, a learning program that is experience-based, student-centered, and career-oriented departs significantly from conventional classroom curricula, and thus requires curriculum guides tailored to its unique aims. Project planning packages were developed specifically for this purpose. But before we talk about them in detail, you should look at some. Familiarity with package contents will make the following discussion more meaningful to you. In fact, throughout your reading of this handbook, you will need to turn to appropriate sections in actual packages for concrete examples of things like package goals, sample projects, and annotated lists of resources.

The Function of Project Planning Packages

A package is not curriculum, but rather a structure within which individualized curriculum can be planned and carried out in the form of projects. Each package unites under a single heading a field of study and the professional and technical careers associated with it. This synthesis enables students simultaneously to study an academic subject area, a significant issue, and a career field to meet academic needs, while satisfying individual interests and broadening career awareness.

The package is a tool used to facilitate the experience-based, personalized learning that is at the heart of EBCE. It does this in several interrelated ways:

1. *It provides structure*. The package is a framework within which the student can make his* own initial learning decisions. It helps organize areas of inquiry according to subjects, disciplines, and careers; it suggests points of entry in terms of issues, interests, and relevant and substantial questions; and it suggests optional ways of pursuing such interests or concerns in the form of sample projects. In other words, the student does not have to start from scratch, nor drift in anxious limbo until he catches on to the EBCE learning process or until a project idea finally occurs to him. He has a place to start and ready-made guidelines for proceeding if he needs them.

2. *It can stimulate learning*. The sample project questions, descriptions of resources, and suggested activities are intended to "turn on" students by provoking thought, challenging assumptions, and whetting interests. The problems and questions posed engage the student in one of two ways: either he perceives them as appropriate expressions of his learning interests and needs, and therefore adopts or adapts them for planning purposes; or they stimulate him to confront his own genuine concerns, to discover or better formulate questions he would like to answer or things he would like to know how to do, and thus to develop a project focus of his own.

3. *It is a key means of reinforcing the EBCE individualized planning process*. Each package displays sample ideas and activities through the use of actual EBCE planning forms that lead the student through the step-by-step process of conceiving, planning, and carrying out a project. Thus, while these samples work toward kindling interest and stimulating action, at the same time they illustrate and reinforce the entire process of developing a successful project: the student sees examples of the kinds of questions he can pursue and goal indicators derived from them; and he sees examples of the kinds of activities and experiences most likely to help him achieve his purpose.

4. *It makes the Learning Coordinator's job of individualizing learning easier*. The package provides the Learning Coordinator (as facilitator and co-planner) with the same kind of structure and stimulus it provides students. It puts at his disposal primary learning resources (Resource Persons, Resource

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* Throughout these volumes we have generally used the masculine pronouns *he*, *him*, and *his* in instances where we obviously mean to refer to both male and female students, staff, or resources in the community. We were unable to find an alternative which was not cumbersome.

Organizations, and Community Resources) already assembled around relevant areas of inquiry and already analyzed for learning potential, plus a list of additional pertinent resources (such as reading and visual materials). The Learning Coordinator (LC) can use the sample projects (including goals, indicators, and activities) to help the student adopt or adapt the suggested research ideas, or to trigger ideas more relevant to the student's interests and needs. The package goals provide LCs with yardsticks for assessing student project plans and determining when they are reasonably complete and sufficient in terms of the kinds of learning outcomes desired in EBCE.

5. *It helps students satisfy both EBCE and local public school learning requirements*. The package goals -- addressing basic skills, career development, life skills, and academic content -- are intended to reflect not only EBCE curriculum goals but also district subject matter equivalencies. Basic skills focus on methods of acquiring and communicating information. Career development includes learning more about oneself -- one's own interests, values, and goals -- as well as learning more about careers, and acquiring skills in relating the two. Life skills are defined broadly to include both essential coping behavior (problem-solving or interpersonal skills, for example) and subject area competence (such as scientific principles or political awareness). If a student begins a project to explore a political issue or acquire skills in science, and develops a project plan which satisfies the package goals, he will at the same time learn about associated careers. If his project focus is a particular career, he will in the course of his learning activities achieve growth in the life skills relevant to the package. Double exposure is built in so that package goals reflect not only EBCE program goals (see Learning Coordination) but also skills and knowledge comparable to those which students might acquire in a regular high school course.

6. *The package provides a mechanism for assigning credit based on performance*. Student projects which satisfy the minimum goals of a package will receive a specified amount of credit despite variations in time required by individual students to complete their projects. But note that the package goals are broadly stated so that students can challenge them with individual projects appropriate to their current knowledge and abilities.

The project is the EBCE mechanism for individualizing a student's learning. In developing projects, students use a package from their own vantage point and select, focus, sequence, and use package resources according to their own particular interests and needs. Project goals, when achieved, serve as indicators that package goals have been met. The project ensures that each student is engaged in purposeful, planned, and documented learning activities, individualized according to his own interests, needs, and abilities, while at the same time aiming at broader package and program goals. (For a thorough description of individualized program and project planning, see Learning Coordination.)

Package Career/Subject Areas

Deciding on the number of different packages needed initially and in the long run, and determining the discipline/career areas of each, is a complex process. At the beginning you may be uncertain about future needs, but remember that packages are readily expandable or divisible. The five packages developed for Far West School* -- Commerce, Communications and Media, Life Science, Physical Science, and Social Science -- can be made to encompass most subject matter/career fields. For example, the Social Science Package can be expanded by adding content goals, resources, and sample projects for the fields of history, psychology, or urban studies in addition to those provided for politics. On the other hand, when resources become sufficiently numerous, the Communications and Media Package can be broken into three parts: written and verbal arts; media arts; and fine and performing arts.

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* The Far West Laboratory EBCE model was developed and tested at Far West School (FWS) in Oakland, California. Throughout this and other handbooks, the experiences of Far West School staff and students are used to illustrate key points.

Selecting a set of packages requires three major steps: (1) reviewing graduation requirements, available resources, and student interests; (2) preparing a list of potential packages; and (3) prioritizing the list according to student needs (i.e., both EBCE and school district requirements) and available resources. If specific course requirements must be met, then the issue of subject matter equivalencies has to be considered when planning packages.

In developing an initial list of potential packages, Far West staff considered the following needs: representing a diversity of career areas for student exploration, enabling students to complete course equivalencies in subject areas required by the Oakland Unified School District, and capitalizing on students' expressed career and subject interests. In determining which packages should be developed and in what order, the list of potential packages (shown in Appendix 2) was reviewed in terms of available and already developed resources, staff needs for guidelines to help students develop projects in required subject areas, and known student interests. Closely related fields were combined in establishing the final list of packages to be developed; for example, business, sales, and self-employment were grouped together in the Commerce Package.

The Commerce Package was identified for early development because numerous resources were already available. The Politics section of the Social Science Package was given priority because seniors needed help in developing projects for American government credit to graduate, even though this required a concentrated resource development effort. Both considerations -- available resources and the district science requirement -- resulted in early development of a Science Package, which was later divided into the Life Science Package and the Physical Science Package because of the large numbers of resources included. Both the size of the package and the size of project seminars (package discussion groups) made the division more practical. The Communications and Media Package was the last package developed, based more on student interests in the field than on subject requirements or available resources.

Adapting Far West Packages to Local Needs

A new EBCE staff may decide to use the five packages developed at Far West School. With relatively minor modifications to fit local conditions, the major contents of the packages -- introductory material, goals, "how to" instructions for staff and students, and project ideas -- can be used by any EBCE program. The local staff would need only to develop comparable resources and possibly change the sample project forms to make the packages reflect their own community.

Over time, however, an EBCE program will need to continuously reevaluate its project planning packages in terms of the changing needs and interests of its students and the size and diversity of its resource pool. Existing packages may need to be expanded or divided; new packages may need to be developed. The following pages offer guidelines for developing packages.

Developing a Package

When the staff has agreed upon the number and kinds of packages to be developed (or adapted), an individual staff member should be assigned primary responsibility for producing each package. Students should be included in the early planning stages, and the experience, creativity, and expertise of the entire staff should be exploited when developing a package. A planning meeting (including students if possible) should be held to discuss graduation requirements, available resources, student interests, and the general format and content of the package to be produced. The package developer can also turn to the following sources for help in determining the essential skills and concepts for the package career/discipline area: teachers and curriculum developers; EBCE Resource Persons and Organizations; and current literature in the field.

Each package contains the following essential parts:

- Package goals identify the scope of the package, set minimum requirements, and identify some of the significant underlying concepts and process skills of the career/discipline area.
- Sample projects demonstrate how students can pursue their own interests while meeting minimum requirements for credit and learning those skills, concepts, and principles considered basic to the package career/discipline area. They also serve as exemplary samples of completed program planning forms (the Project Sketch and the Student Project Plan) while offering project suggestions for students to pursue.
- The annotated list of resources describes the resources available for learning activities related to the package.
- A statement about related project seminars or discussion groups explains their nature and purpose.
- Project planning guidelines, entitled "How to Plan and Complete a Project," provide guidance on how to plan projects and a reminder of the tasks involved.

Other sections not as critical to the package concept, but time-savers for students and staff during project planning, include: a bibliography, project ideas, a list of careers to explore, and a list of courses for which students could seek subject matter equivalency credit depending on the focus of their projects.

Determining Package Goals

Determining goals is the most important task in developing a package. By identifying the kinds of skills and knowledge students should ideally acquire through their projects, and by setting minimum requirements for project credit, the broad goals establish the scope of a package. In developing them, the staff should draw from both EBCE program goals and from the suggested learning activities and outcomes (stated in Resource Guides*) for the resources to be included in the package. Exhibit 1 illustrates the process of translating program goals into package goals which are realistic in terms of available resources. Exhibit 2 summarizes the content goals of the five Far West EBCE packages. (See the individual packages for complete goal statements.)

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* See Resource Development for sample Resource Guides.

EBCE core curriculum is concerned with student growth in three broad areas:

Applied Basic Skills

reading
writing
oral communication
quantitative skills

Core Life Skills

interpersonal skills
inquiry skills
problem-solving
decision-making

Career Development

career awareness
self-knowledge
career decision-making
career entrance skills

Every package includes goals in each of these areas as well as content goals appropriate to the subject/career area of the package. Thus, to meet package requirements and obtain minimum credit, the student's project goals must incorporate applied basic skills, life skills, and career development knowledge and skills, as well as content goals. Such a design makes it clear to students that growth in these core areas is a natural part of every project, whatever its particular content. (See Learning Coordination for a further specification of the basic, life, and career development goal areas.)

Besides encompassing these four areas, the package goals should adhere to the following general criteria:

- They should be stated as general instructional (as opposed to specific behavioral) objectives based on the model presented by Gronlund.* They should be broad statements describing the direction in which students should grow -- at different rates and to varying degrees -- but which they may never fully achieve.

- They should clearly state the minimum requirements for receiving credit for a project as well as the general learning outcomes students are expected to achieve.

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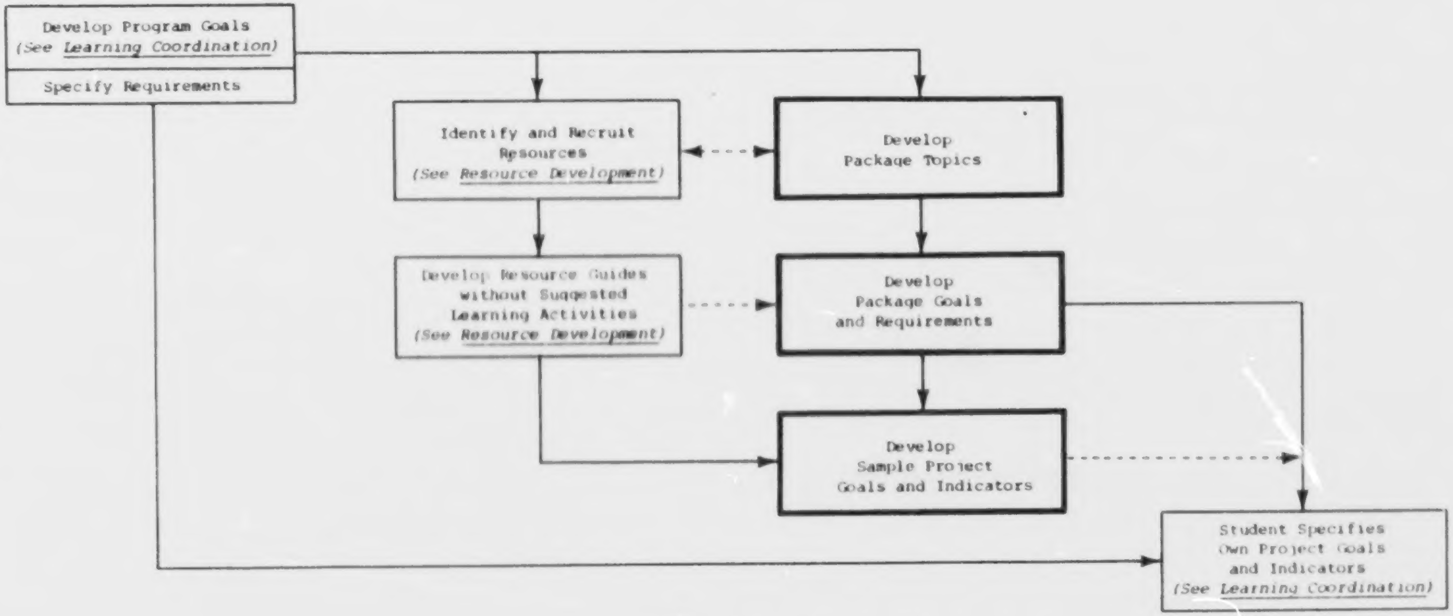
* Norman E. Gronlund. Stating Behavioral Objectives for Classroom Instruction. New York: The MacMillan Company, 1970, pages 5, 32, 34.

Exhibit 1

Developing Package Goals


Develop Program Goals
(See Learning Coordination)
Specify Requirements
Identify and Recruit Resources
(See Resource Development)
Develop Package Topics
Develop Resource Guides without Suggested Learning Activities
(See Resource Development)
Develop Package Goals and Requirements
Develop Sample Project Goals and Indicators
Student Specifies Own Project Goals and Indicators
(See Learning Coordination)

DEFINITION OF TERMS

Program Goals are broad skill or knowledge areas of the curriculum (e.g., reading, problem-solving, career awareness, or economic competence) in which students are expected to demonstrate growth.

Package Goals are a selection (or combination and further specification) of Student Outcome Objectives in terms of a particular content and career area.

Suggested Learning Activities are context- and content-specific statements in Resource Guides of desirable student learning activities and outcomes related to a particular site or resource. They are suggestions which provide only a representative sampling of potential learning outcomes possible from student interaction with the resource

Sample Project Goals and Indicators are context- and content-specific statements of what a student could learn by completing a suggested project.

Student Project Goals and Indicators are context-, content-, and student-specific statements of what students desire to learn about and learn how to do through engaging in a self-selected set of activities with a self-selected resource or set of resources. In developing project goals and indicators, students may adopt, adapt, or add to suggested learning activities and sample project goals and indicators. Project goals and indicators must provide valid indicators of package goal accomplishment

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Exhibit 2

Summary of Package Content Goals

PACKAGE	GOALS
LIFE SCIENCE	LIFE SCIENCES TECHNIQUES AND TERMS You should be able to identify, understand, and use the appropriate specialized skills, techniques, and terms required for an investigation in the area of biology you choose to study. LIFE SCIENCES INQUIRY The biological sciences involve the study of all living things and their physical interrelationships with one another: people, plants, and animals and their dependency on each other and their environment in order to survive as individuals and as species. These sciences include many discrete but related branches such as zoology, botany, physiology, and anatomy. An inquiry in any of the biological sciences should include some of the following activities: designing and conducting an experiment; investigating a living organism; investigating a major problem facing scientists today in the biological sciences; understanding and using biological concepts; and identifying and analyzing the interrelationship between two branches of the biological sciences.
COMMERCE	BUSINESS EDUCATION Completing a project on some aspect of business education should increase your understanding of business organization and operations, the effect of corporate policies and activities on your daily life, and the means by which citizens can influence corporate actions. You should demonstrate your understanding of them. ECONOMICS Completing a project on economics should increase your understanding of some major concepts and methods used as tools in the study of economics and expand your knowledge of your economic environment. You should understand and be able to use these concepts in analyzing an economic situation, process, or issue of interest to you.
COMMUNICATIONS AND MEDIA	COMMUNICATIONS AND MEDIA TECHNIQUES You should be able to identify, understand, and select to learn at least one of the specialized skills and techniques of an area of communications and media which interests you. Your task is to identify the techniques and skills needed in the career field you are investigating and, working with resources in the community and your Learning Coordinator, specify exactly which you wish to acquire. COMMUNICATIONS AND MEDIA INQUIRY Artists, writers, musicians, and others who spend most of their lives communicating thoughts, ideas, feelings, and information are aware of the differences between what is, what they perceive to be, what they communicate, and what other people understand of their messages. An inquiry into some form of communications should result in your better understanding communications concepts, principles, and relationships as they pertain to your area of investigation.
PHYSICAL SCIENCE	PHYSICAL SCIENCE INQUIRY The physical sciences include physics, chemistry, and numerous other discrete but related branches of science. A fundamental concept upon which all of these sciences are based is that knowledge of nature gives us a command of its potential--the relative advantages and disadvantages of its uses and their costs, benefits, and risks for humanity. Science is the organization of knowledge in such a way that the unknown is guessed at ("hypothesized") and tested until it is known. Even scientific "facts" are tested and retested to be sure they can withstand the wisdom and changing perspective of time. A project in the physical sciences should include knowledge of the major concepts in the field, the problems facing scientists today, the major values and beliefs which influence the way scientists work and scientific knowledge is used, and the interrelationship of scientific disciplines. PHYSICAL SCIENCE TERMS AND TECHNIQUES You should learn to use specialized skills, techniques, and terms appropriate to your project.
SOCIAL SCIENCE/ POLITICS SECTION	AMERICAN GOVERNMENT/POLITICS You should increase your understanding of the American political environment, effects of government policies and activities on your daily life, and means by which you or others can influence government actions. POLITICAL INQUIRY You should increase your understanding of various concepts and methods as tools for use in studying politics and expanding your knowledge of the political environment.

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- They should allow students of differing levels of ability and previous study in the field to challenge the goals in a way that extends their skills and knowledge. That is, they should encourage growth in all students, whatever their starting base, rather than identical achievement.

- They should allow students to select the specific content and context (project focus and resources) and method of demonstrating learning (the product or performance).

Before reading further, study the Social Science Package goals and compare them with the above criteria. Note that goals have been stated in the applied basic skills, problem-solving (life skill), and career development areas. Any student designing a project for social science credit should address each of these goal areas. Content goals have also been specified in the politics area to provide guidance to students desiring American government or related credit. (These content goals also provide a general yardstick for staff to use in assessing project plans in related fields such as sociology or anthropology.) Observe that:

The goals are stated as general instructional objectives. For example, "You should increase your understanding of the American political environment." Goal elements (power relationships among federal, state, and local governments; your rights and obligations as a citizen; and so forth) further define what is meant by the broad goal. The goal elements, however, are only a sampling of the kinds of things students might seek to learn about in increasing their understanding of American politics. Specific behavioral objectives or performance criteria are absent. They will be worked out by the student and his Learning Coordinator as goals and indicators appropriate to the student's project theme, research questions, resources, and learning activities.

Requirements for earning credit are specified, but they offer options so that the student must decide how he proposes to satisfy them. For a student to earn five EBCE credits for a project in American government (equivalent to one semester's course work), he must include at least two applied basic skills; all elements of the problem-solving (life skill) goal; all elements of the career development goal for two careers; and project goals and indicators which clearly specify how the student will demonstrate understanding of at least three major concepts, principles, relationships, or methods used in the field of study.

The goals allow students of differing background knowledge and ability to challenge them with projects of varying difficulty. A student with a good working knowledge of the American political system could design a project to research and compare the philosophy, structure, and operating principles of the two major parties, while a beginner could focus on the procedural steps by which a bill becomes law. Both projects could be designed to meet the minimum package goals and earn minimum credit. The Learning Coordinator, like any teacher, is faced with the difficult task of determining whether each student is working to capacity.

The goals allow students to select the specific content, context, and method of demonstrating learning. Using the above example, Jane may choose to research political parties by working with members of both Democratic and Republican central committees and doing extensive reading in the field. In the process she will learn something about "purposes, methods, and achievements of . . . political parties," the "relative effectiveness of ways . . . citizens can influence government actions," and "values and factors influencing political participation of individuals and groups." She also proposes to learn more about paid positions at the local level in party organizations. She will demonstrate what she has learned by writing a 20-page research paper using the university-approved format as well as giving a presentation on paid positions in local politics in an advisory group meeting. John, on the other hand, proposes to look into the process by which a bill becomes a law at the local and state levels. He plans to interview a lobbyist and spend some time with a city councilman and a legislative aide to a state assemblyman. He will learn something about "ways citizens can influence government actions," "formal and informal rules in American politics," and "relationships among . . . state and local governments." He plans to compare the careers of lobbyist and legislative aide in a free-verse poem and to illustrate the process of and barriers to an idea becoming law in a photographic essay. Both projects would meet the package goals.

Goals in basic, career development, and core life skills may be standardized across packages. Content goals, which describe in general terms the kinds of knowledge and skills students should acquire by working on a project in that package, however, must be specific to the package career/discipline area.

Content goals in the five Far West packages require students to select from three to eight specific elements (concepts, theories, relationships, techniques, or processes) about which they will demonstrate knowledge or skill. The staff-developed list of content goals is never comprehensive, but rather a representative sampling of the essential skills and knowledge students should acquire. Students have the option of identifying comparable knowledge or skills to pursue (with the approval of their Learning Coordinator).

Once staff have agreed upon the broad set of basic skills, life skills, career development, and subject matter content goals to be included in the package goal statement, minimum requirements for project credit must be determined. Requirements in Far West packages were designed as guidelines for determining when a project was roughly equivalent, in amount of work and learning, to a semester's course work. Local EBCE staffs may need to alter these standards.

By specifying package goals and minimum requirements, both students and staff have a yardstick for determining how much credit will be received when a project is satisfactorily completed. A Far West student who plans and completes a project meeting the minimum requirements of a package earns five EBCE credits in the appropriate subject area (the equivalent of one semester's work in the subject). Projects including fewer goal elements receive less credit; thus the student may need to complete more than one project in a field to satisfy a district requirement. Projects including significantly more goal elements receive more credit, the amount and kind negotiated in advance by the Learning Coordinator and student.

Having package goals and minimum requirements does not mean that the staff will be able to avoid difficult decisions about how much credit student projects will or should earn. But agreeing on a general yardstick should make the process somewhat less arbitrary and more consistent from one staff member to another. An EBCE staff planning to use the Far West packages should carefully review the goals and requirements of each one. Based on the length of the school term (if other than a semester system), district requirements for student performance within subject areas (if any), and the staff's own standards for what students should accomplish, it may be necessary to delete, add to, or modify the package goals and requirements.

A goal checklist is developed from the package goals and requirements. This checklist is an optional form used to record which goals the student intends to meet with his project(s). It is also a reminder of what must be done to meet the package requirements. (See the packages for concrete examples.)

Package goals and requirements indicate the kinds of things students should learn in order to earn a given amount of credit, thus relating amount of work, in a sense, to amount of credit earned. (Time productively spent on a project may be used as a worthwhile mechanism to double-check the reasonableness of the standards.) Packages do not offer blanket standards for evaluating the quality of student work. Determining performance criteria and assessing the quality of student work (or assigning grades, if used) requires consideration of the individual student's past performance and capabilities. (Unrealistic standards serve to frustrate; unchallenging standards fail to motivate.) It is also necessary to take into account the content and focus of the student's project, what he wants to learn about or learn how to do, the resources he will work with, the learning activities he will engage in, and the method he chooses to demonstrate achievement of his goals.

Minimum performance criteria are not specified in packages, so that students can work to the limit of their abilities in their chosen areas of interest. Instead, each student negotiates performance criteria for his project goals and indicators with his Learning Coordinator and the resources with whom he is working on his project. Like any teacher, the student's Learning Coordinator must make some difficult decisions in determining whether the performance criteria in the student's project plan are appropriate and in assessing the acceptability and quality of completed student work. (See the Project Planning and Credit Assignment sections of Learning Coordination for a broader discussion of these issues.)

Deciding Which Resources to Use

After the goals of the package have been determined, it is necessary to decide on the range of careers to be included. Should the career of employment counselor, for example, be included in the Communications and Media Package (verbal arts), the Social Science Package (behavioral arts), or the Commerce Package, or in all three? Including a particular career in more than one package, when appropriate, can help students recognize the complex relationships between different kinds of work.

When selecting careers and resources for a package, staff should:

- read available Resource Guides to learn about the kinds of learning activities and outcomes possible at each resource site;
- if necessary, talk to resources about their relationship to the package career area and verify the learning activities which could occur at their site; and
- discuss newly-recruited and potential resources with the Resource Analyst.

Resources should be included in packages only if a student can, in fact, engage in significant learning activities related to the package area with that resource. A bookstore owner who will help a student learn about the business principles and practices of ordering, processing, inventorying, displaying, and selling books should be placed in the Commerce Package. He should be included in the Communications and Media Package only if he can help a student learn some of the concepts, principles, and techniques used in the field of communications -- for example, through a project investigating the audience appeal of different books.

Drafting the Package

An initial draft of the package should include at least these parts:

1. the goal statement (discussed above),
2. a minimum of three sample projects,
3. the annotated list of resources, and
4. two standard statements -- one explaining the purpose of related discussion groups or project seminars, and another describing how to plan and complete a project.

Sample Projects

Before reading further, review several of the sample projects in the Far West packages. The purpose of sample projects is to provide students and staff with examples of properly completed project planning forms and to show them how to blend student interests with package requirements. Students having difficulty developing a project of their own can elect to pursue a sample project as written. Other students can use the samples with modifications to suit their own goals and interests. The samples also provide format guidelines for asking researchable questions and devising project goals and indicators. Therefore, sample projects should:

- provide well thought-out and composed models of project plans which students and staff should seek to match in designing new projects;
- include projects of varying length, depth, breadth, and difficulty so that students of divergent abilities and experience in the program can use them, and to clarify for students and staff the possible range of alternatives for project planning and design;
- be written from the student's standpoint -- as though an experienced student had written them;
- be the most imaginative and meaningful projects the writers could either develop or find among actual student projects;
- naturally blend activities and goals from the core curriculum;
- meet all program and package requirements for projects;
- contain goal indicators that state what the student will do, the intent of his efforts, what he will produce (or perform) that can be evaluated, and the criteria on which evaluation will be based; and
- include complete goal checklists to show how the project goals and indicators relate to package goals and requirements.

The more authentic the sample projects, the greater the likelihood they will spark student interest and provide realistic models. The set of sample projects (at least three and preferably six are recommended) should illustrate each of three possible project themes: career exploration, subject matter study, or investigation of an issue.

To provide good illustrations, sample projects should be developed using the same process students are asked to use in planning their projects:

1. Using the Project Sketch:
    - select an area of interest;
    - review the resources to find ones appropriate to that area;
    - ask some probing questions; and
    - choose two or three resources to visit for Orientations.
2. Using the Student Project Plan:
    - narrow the focus of the sample project and define its purpose;
    - determine the amount and kind of credit desired;
    - ask probing questions which indicate what you, as the imaginery student, want to learn;
    - select additional resources to visit (and record those already visited) and choose at least one for Exploration- or Investigation-level activities;
    - estimate the time required to complete the sample project;
    - decide what you want to learn, and write it in the form of project goals;
    - decide what you will do to show that you have achieved your goals and write those as goal indicators, being sure that your performance and products can be evaluated and documented; and
    - record who will evaluate your products and performance.
3. Using the Package Goal Checklist:
    - compare your goals and indicators with the package goals and requirements for the amount and kind of credit desired and,
    - if necessary, write additional goals and indicators to meet package requirements, but be sure they relate directly to the sample project's focus.

The project goals and indicators listed on the last page of the Student Project Plan should obviously be consistent with the project theme and the questions to be investigated.

The project goal is a general statement of what the student wants to learn: knowledge, skills, and techniques. Goal indicators are specific statements of how the student will demonstrate he has achieved his purpose. Since indicators play the most important role in planning, carrying out, and assessing student projects, they are discussed here in detail.

When achieved, the project goal indicator should show that the student has attained his goal and (when added to the other goals and indicators on the plan) that the student has satisfied the package goals. A goal indicator is like a performance or behavioral objective developed by the student, in terms he can understand, and approved by staff.

To enable a project to be assessed, each indicator must state:

- the task which the student will perform (for example, compare and contrast, describe, evaluate, construct, type);
- the product or performance to be evaluated (for example, a written or photographic essay, a construction of some kind, a taped interview, a musical performance, an oral presentation, or performance at the resource site); and
- the basis on which it is to be assessed. At a minimum, include what topics will be addressed in an essay or report; when possible, include specific performance criteria (for example, increase typing speed from 30 to 60 words per minute or accurately classify 25 indigenous plants).

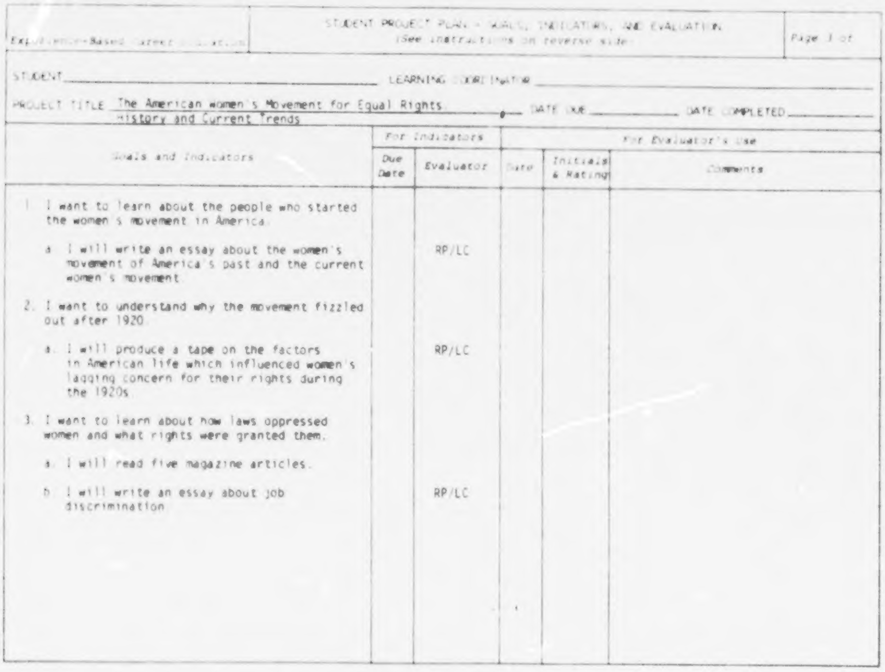
Avoid statements which do not state what the product or performance will attempt to show and those which do not challenge the student to use knowledge or skills acquired in some new or different way. The incorrect examples in Exhibit 3 demonstrate three different problems that frequently occur:

1. Goal indicators are too vague. They fail to state what the student will write or learn about the women's movement or how he will deal with the information. The use of the words "about" and "on" does not indicate what the student will do with the information he acquires. Will he analyze it, compare and contrast it, read and explain it, or copy it?
2. Goal indicators are really learning activities, rather than learning outcomes -- the means rather than the end. For example, "I will read five magazine articles." How will the student demonstrate that he has acquired some knowledge or skill (achieved his goal) from this activity?

Exhibit 3

Examples of Student Project Goals and Indicators

Incorrect



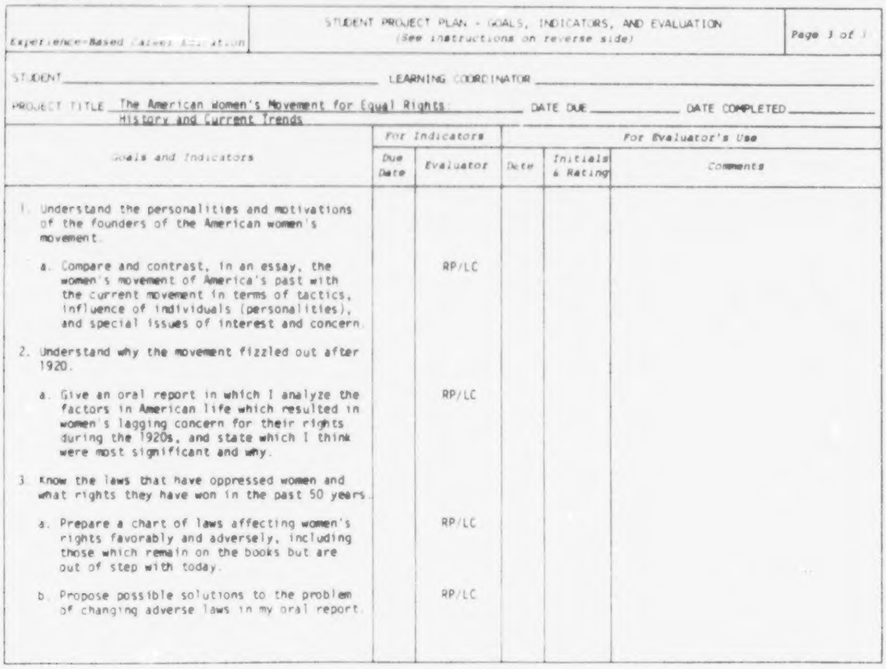
Experience-Based Career Education	STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION (See instructions on reverse side)	Page 3 of

STUDENT________ LEARNING COORDINATOR________

PROJECT TITLE The American women's Movement for Equal Rights: History and Current Trends DATE DUE______ DATE COMPLETED______

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
1. I want to learn about the people who started the women's movement in America.					
a. I will write an essay about the women's movement of America's past and the current women's movement.		RP/LC			
2. I want to understand why the movement fizzled out after 1920.					
a. I will produce a tape on the factors in American life which influenced women's lagging concern for their rights during the 1920s.		RP/LC			
3. I want to learn about how laws oppressed women and what rights were granted them.					
a. I will read five magazine articles.					
b. I will write an essay about job discrimination.		RP/LC			

Correct



Experience-Based Career Education	STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION (See instructions on reverse side)	Page 3 of

STUDENT________ LEARNING COORDINATOR________

PROJECT TITLE The American Women's Movement for Equal Rights: History and Current Trends DATE DUE______ DATE COMPLETED______

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
1. Understand the personalities and motivations of the founders of the American women's movement.					
a. Compare and contrast, in an essay, the women's movement of America's past with the current movement in terms of tactics, influence of individuals (personalities), and special issues of interest and concern.		RP/LC			
2. Understand why the movement fizzled out after 1920.					
a. Give an oral report in which I analyze the factors in American life which resulted in women's lagging concern for their rights during the 1920s, and state which I think were most significant and why.		RP/LC			
3. Know the laws that have oppressed women and what rights they have won in the past 50 years.					
a. Prepare a chart of laws affecting women's rights favorably and adversely, including those which remain on the books but are out of step with today.		RP/LC			
b. Propose possible solutions to the problem of changing adverse laws in my oral report.		RP/LC			

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3. Indicators are used which do not apply to the goal they are intended to satisfy. The indicator for the third goal will not show what the student has learned about laws affecting women. If necessary, more than one indicator should be written to state how the student will meet the project goal.

While all students cannot be expected to write goals and indicators at the level of the correct examples in Exhibit 3, the sample projects in packages should provide models for Learning Coordinators and students to follow.

Annotated List of Resources

After the resource list has been compiled, very brief descriptions should be written of the activities possible at each site. These descriptions should give the Resource Person's name and title, or the name of the Resource Organization, and the kinds of things students can do and learn at the resource site. The Resource Guides should provide all the necessary information for compiling the resource list. If not, a phone call to the resource can determine if the developer's estimation of possible activities is realistic.

The annotations should emphasize what the students can do and learn rather than what the Resource Person does.

Avoid: Jane Davis. An employment counselor at the Department of Human Resources Development. She conducts workshops and group counseling sessions for people looking for jobs.

Write: Jane Davis. Employment counselor with the California State Department of Human Resources Development. You can learn about vocational tests and matching individuals' interests and abilities to occupational areas; you can also develop and apply individual and group employment counseling techniques.

Each category (Resource Person, Resource Organization, or Community Resource) should be alphabetized separately and begun on a separate page so that new resources can easily be inserted after the package has been printed. Names and descriptions can be added on the appropriate page and the entire list updated two or three times a year as necessary. (Be sure to date each revised list so students and staff can identify and use the most current information.)

Statement About Project Seminars

A statement describing related seminars or discussion groups should be included in every package. It should summarize their purpose and state requirements for student participation.* It should outline what will take place and how often the groups should meet. See the section on using packages for an explanation of the purpose and format of these seminars. Appendix 3 is a copy of the statement included in Far West Laboratory (FWL) packages.

Guidelines for Planning and Completing a Project

Student project planning is not a simple process. (See Learning Coordination for a detailed description of the process.) The average student cannot clearly define what he wants to learn until well into the project. Project planning demands the integration of ideas and interests with resources and activities, reading and research, goals and indicators, and final products and performances. It is an iterative process, frequently entailing one step backward for every two steps forward, and it can be confusing and occasionally immobilizing for a student. To help students and staff both visualize and remember everything that should be done to successfully plan and carry out a project, the tasks are written as numbered steps. (Appendix 4 is a copy of the statement included in FWL packages.) However, it is vital that the statement on project planning inserted in each package make it clear that these steps are not strictly linear and may have to be repeated or started anew.

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* At Far West School, discussion groups of students working on projects in the career/discipline area of a package were organized using a seminar format in which students shared their individual research and experiences with others, under the guidance of expert staff, so that all received a broader exposure to the field. Thus students working on biology or zoology projects met regularly in life science project seminars (called "package meetings" in earlier FWL-EBCE documents).

Basically, the statement tells:

1. where to look for ideas and information,
2. how to develop an idea,
3. what to do if the student cannot find a topic that interests him,
4. what forms to use and when,
5. who can help the student and who approves his project,
6. what resource activities should be included, and
7. how to have the project evaluated for credit.

Additional Package Sections

There are five other sections which may or may not be developed for the package, depending on the needs of the program. They are: an introduction, a list of project ideas, a list of possible careers to explore through the package, a list of local high school courses for which students might seek equivalency credit with a project, and a bibliography. Each section is briefly discussed below.

Introduction. It should be short and readable. It should explain and define the package career/discipline area; identify the range of careers, subjects, and issues which can be investigated through the package; and explain briefly how the package can be used.

Project Ideas. The purpose of this section is to provide additional suggestions for projects without spending the time needed to develop them into full-fledged samples. The project ideas should expand the possible range of project topics within the package while providing a few thought-provoking questions on each topic.

Careers to Explore. The purpose of this page is to offer a representative selection (depending primarily but not solely on available resources) of the careers which can be explored through the package. The list should indicate the range of careers covered by the package career/discipline area and the variety of levels (in terms of the education and training required) within those careers. Appendix 5 is a sample list of careers for exploration taken from the FWL Communications and Media Package.

Course Equivalencies. This page should list those courses offered by the local school district related to the package for which students might seek equivalency credit. Vocational education courses should be listed separately under a statement explaining that they require extended (an Investigation) with a Resource Person or Organization or demonstrated mastery of entry-level job skills. Appendix 6 is a sample list of course equivalencies taken from the FWL Communications and Media Package.

Bibliography. The purpose of including a bibliography in the package is to suggest reading of known value readily available in school or public libraries. The bibliography should be brief and annotated.

Reviewing, Revising, and Approving the Package

A review draft of each package should be circulated among the staff to obtain their comments and criticism. In most instances, the responsible developer will find it helpful to consult with one or more staff members while producing drafts of various parts of the package, especially the sample projects and the goals. If possible, after the staff has had time to review the package draft, they should meet to discuss it and arrive at a group decision about the package requirements and the number, quality, and topics of the sample projects. On the basis of comments and suggestions received, the package can be revised and again circulated for review. If it meets staff approval, it is ready for reproduction and distribution to staff and students.

Using Packages

Introducing Packages

The task of developing project planning packages in new areas, or adapting those developed by Far West, may fall to the EBCE staff (Learning Coordinators, the Resource Analyst, and the Skills Specialist) or to a curriculum developer from the school or district. The staff member who has been designated as Package Coordinator, and who will thus be responsible for serving as the staff expert in the subject field and for leading discussion groups, should be the package developer or work closely with the developer. All staff should approve final versions and meet to discuss their purpose, contents, and use. If time allows, they should go through each package, section by section, before it is made available to students.

The first time a package is used is a transition period during which the package developer works with other staff to help them make effective use of the packages. The package developer should act as a resource: attend student discussion group meetings, help explain the packages to students, and work with Learning Coordinators and students on an individual basis as necessary. In addition, when attending discussion groups or seminars, package developers should gather evaluation information which will help them in later revisions.

Staff Roles

Effective use of packages in an EBCE program requires that each have a designated coordinator -- one staff member who will take responsibility for leading related discussion groups or seminars, and for serving as an expert resource to whom other staff and students can turn for special assistance in planning and evaluating projects in the subject area. Depending on the number of staff members and students, and the number of packages in use, each staff person -- whether his primary duties are that of a Learning Coordinator, Resource Analyst, or Skills Specialist -- may also be asked to serve as coordinator for one or more packages.

The Package Coordinator has responsibility for:

- scheduling and leading discussions with students working on projects related to the package subject/career field;
- helping students relate their diverse interests and learning activities to broad issues, concepts, and principles of the package discipline/career area;
- furnishing students with background material and information;
- stimulating students to question and evaluate their values and goals as they relate to their projects, to the package, and to each other's project activities;
- arranging for outside speakers, films, and group site visits pertinent to students' projects;
- planning the successive discussion groups so that there is purpose and continuity from one meeting to the next and so that each meeting focuses on a topic or issue of significance to the package and to the group;
- ensuring, as much as possible, the participation of all students;
- helping students divide into smaller interest groups if the size and interests of the group require it, and coordinating these meetings; and
- serving as an expert resource which students and other staff can tap for information and assistance in developing and evaluating projects related to the package area.

While the coordinator of the package serves as an expert source of information, each Learning Coordinator is ultimately responsible for helping his students plan and carry out effective projects and programs. The students' LC exercises final approval of his project plans and helps them determine how and when they will fulfill program requirements. Learning Coordinators refer students to appropriate packages, introduce them to the Package Coordinator, and inform them of discussion group sessions and requirements. LCs may need to seek the assistance of the appropriate Package Coordinator in evaluating completed projects and making credit determinations.

No doubt there will be considerable overlap between the Learning Coordinator's and the Package Coordinator's responsibilities for providing assistance to a particular student. The Learning Coordinator, however, retains final authority to approve both project plans and completed work. The Package Coordinator should let the LCs know when questions or problems arise, and should keep them informed of advice given to their students and progress and attitudes observed in his discussion group. Learning Coordinators should exchange viewpoints about ways of better fulfilling their roles as Package Coordinators -- share problems and successes and work together to expand their skills in leading the seminars and advising individual students.

Student Use of Packages

How students use packages will vary depending on a variety of factors, including their reading and conceptual skills and their background knowledge in the subject area of the package. Most students will use the packages to find ideas for projects and to identify resources related to their area of interest. They should be encouraged to use the sample projects, at least as models to strive to match. Few students will be able, without staff assistance, to use the package goals and goal checklists to determine if their project plans are complete and appropriate to the kind and amount of credit they hope to earn. Students will need staff help to understand the packages and how to use them effectively. They will especially need help understanding the contents, use, and underlying reasons for the package goals and minimum requirements.

At Far West School, when a student begins to plan a project relating to one of the packages, he is "in" that package and must fulfill its requirements. His Learning Coordinator alerts him when his interests relate to a particular package, helps him understand what a package is and how to use it, and introduces him to the Package Coordinator. From that moment until the student has completed his project and is ready to submit it for credit, he must attend all required discussion groups or seminars (usually one or two 1½-hour meetings per month). If the student is part of a seminar which has divided into subgroups, he attends any large-group sessions and all meetings of the subgroup in which he is participating. A student working on advanced projects within a certain package may feel that once is enough for discussion group meetings, and that a second round of attendance would be repititious. In such cases, participation in the group may be waived in writing by his Learning Coordinator, although it is recommended that the Learning Coordinator first discuss the purpose and content of the seminar with the Package Coordinator.

Although any project related to a package career/discipline area should be designed to meet the minimum package goals, this requirement can be waived at the discretion of the Learning Coordinator. The most common reason for modifying the requirement is when a student works best on smaller projects and thus needs to complete more than one in order to meet the minimum package goals. In such a case, both projects should be planned simultaneously so that completion dates are established for each which will together satisfy the package requirements. Students may also plan and carry out projects to earn more than minimum credit by developing project goals and indicators which exceed package requirements. The Learning Coordinator should carefully review such plans to make sure that the student is not taking on more than he can really handle and, secondly, to verify that the additional credit the student plans to earn is justifiable.

Students may plan and carry out as many projects through a single package as they desire. A student never "completes" a package in the sense that he would complete work in a conventional text. Rather, each package is designed to permit an unlimited number of different projects as students' interests, skills, and knowledge grow. Students may also work on projects in more than one package at a time, but must meet the requirements of each.

Project Seminars

Discussion groups or seminars of students working on projects in related subjects, careers, or issues are an important mechanism for reinforcing and facilitating learning based on the students' experiences with resources. Their purpose is to help ensure relevant and substantial learning by providing students with a common forum for:

- discussing the broad issues, concepts, relationships, and theories of the package career/discipline area;
- exchanging and discussing ideas about projects and field experiences;
- stimulating discussions of the package goals through student exchange of community experiences;
- furnishing students with background material and information, showing films, and hosting outside speakers on topics related to the package and students' specific projects;
- giving interim and final progress reports on projects and presenting project products;
- discussing, planning, and criticizing Project Sketches and Student Project Plans;
- clarifying personal values, problems, or concerns related to careers or issues students are studying through the package; and
- brainstorming on topics or to solve problems.

Discussion group methods and techniques are described in Learning Coordination. Package-related seminars differ from student advisory groups in that their membership will constantly change. Advisory groups are designed to be a stable part of each student's program. Project seminars, on the other hand, are meant to enable students with like interests to share their project ideas, experiences, and problems. As students' interests change, so will the membership of each group. Subgroups can and should be formed, disbanded, and reformed according to students' interests and their current projects and to assure that the size of the groups does not become so large as to inhibit effective discussion.

At Far West School, a regularly-scheduled time was set aside each week for each Package Coordinator to hold a project seminar with students or provide individual assistance on projects. Thus, from 10:30 a.m. until noon on Mondays, the Life Science Package Coordinator would lead a project seminar or be available to individual students needing her assistance developing projects in that area. During the same time period on Tuesdays, the Commerce project seminar would meet or the Commerce Package Coordinator would be available to students needing his help. The number of actual seminar meetings varied with the number of students working on projects related to the package. Because of the number of students working on projects in Social Science areas, each Wednesday a different group of students would meet in seminar. (On the first Wednesday of the month, a general social science seminar met to help students get ideas for and plan projects; on the second Wednesday, students working on government projects met; the third week, the history project seminar met; and on the fourth Wednesday, psychology and related projects were discussed.)

Formative Evaluation and Revision of Packages

By their very nature, packages require updating and revision. The annotated list of resources will have to be updated every semester or year in order to function as an accurate reference for student and staff use. In formatively evaluating their project planning packages, the staff should inquire into how well they are meeting the goals and objectives shown in Appendix 1, identify any problem areas and possible contributing reasons, and make appropriate changes in the packages or the procedures for their use.

Project ideas and sample projects may need to be updated or supplemented to reflect advances in the subject/career area and to share exemplary projects developed by EBCE students. It may also be necessary to modify the package format. Such modifications should be designed primarily to make the packages as effective guidance tools as possible. The prime sources of information for such changes should be the package users. Students and staff should be interviewed periodically to determine how well the package resources meet students' needs and interests, which sections of the package are most useful, and additional resources or sample projects that should be included.

In order to meet the needs of students and staff while ensuring that packages are developed and used in accordance with program goals and principles, the staff should work closely together in determining and agreeing upon package revisions and modifications, involving students in the process as much as possible.

Appendices

Appendix 1

Purpose of Packages: Goals and Objectives

Project planning packages should fulfill the following goals and objectives.

1. Provide a framework which facilitates project planning by:
    - reducing project planning time;
    - providing sufficient flexibility for students to pursue their interests while meeting package goals;
    - helping students and Learning Coordinators produce Project Sketches and Student Project Plans which clearly state the project's scope, questions to research, and project goals and indicators; and
    - stimulating students to develop projects they might not otherwise have undertaken.

2. Inspire students to increased and effective use of learning resources in the community.

3. Promote a blending of basic, life, and career development skills in students' projects.

4. Provide Learning Coordinators with materials that challenge students to develop significant projects by:
    - providing sufficient aid to the Learning Coordinator to guide student planning in areas where the Learning Coordinator lacks expertise;
    - providing Learning Coordinators with adequate information about careers related to the package and the resources available for exploring those careers;
    - helping students explore principles, relationships, and concepts with broad application;
    - helping the Learning Coordinator motivate students to develop higher-level inquiry skills and master more difficult subject matter; and
    - enabling Learning Coordinators to assign credit for completed projects on the basis of performance rather than time.

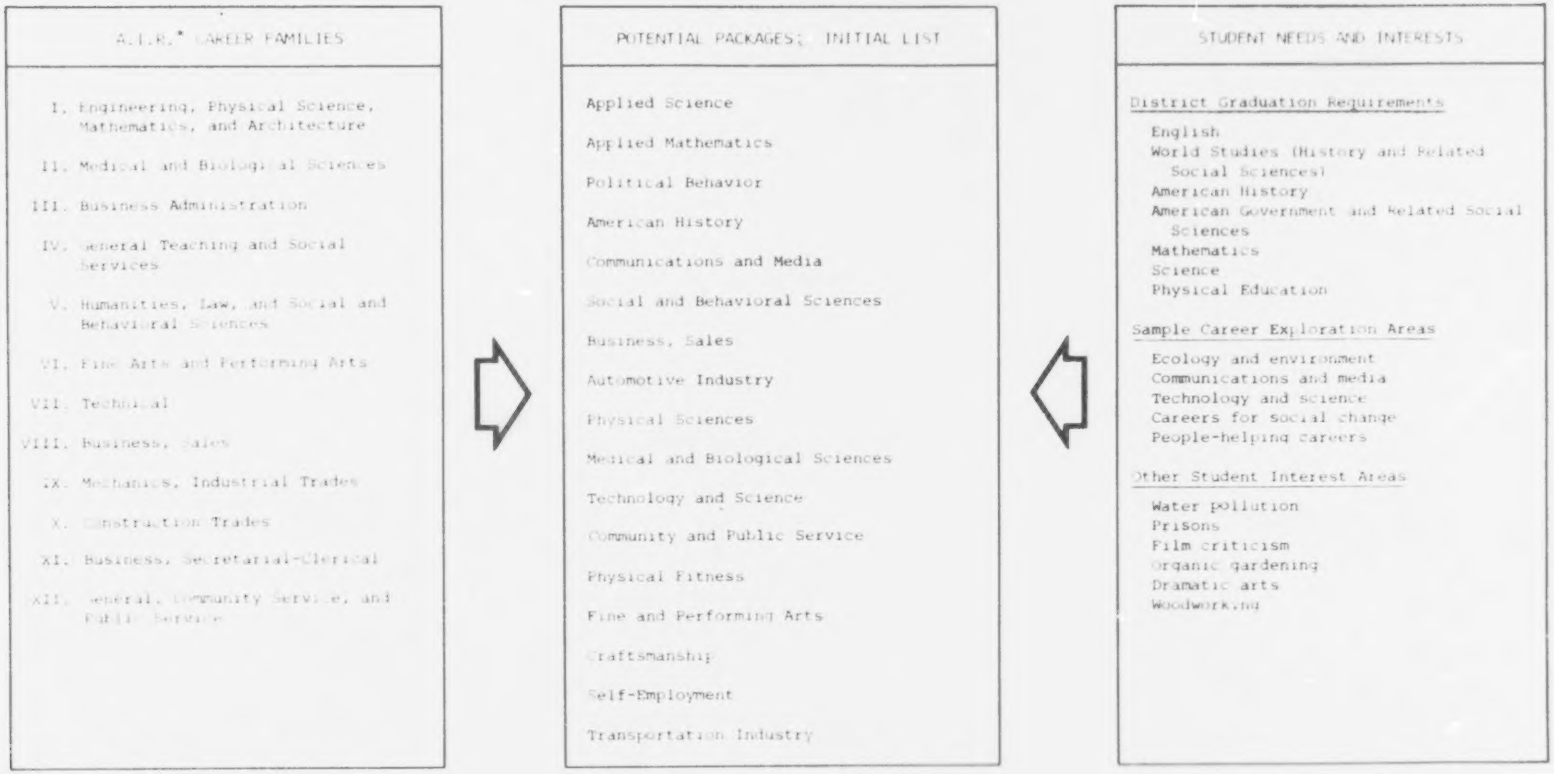
5. Provide a representative sample of goals for the particular discipline/ career area by:

   - including in the package goals the development of process skills and subject matter which practitioners use and students should acquire;
   - developing sample project goals and indicators comparable in difficulty to those of related traditional courses; and
   - providing sample project goals and indicators which reflect the kind of learning that can actually occur when students work with individuals at resource sites.

6. Provide a set of interrelated resources that enables students to:

   - construct meaningful projects for exploration of "vertical" aspects of careers (for example, the relationship between the careers of doctor, nurse, and medical technologist) and "horizontal" ones as well (for example, the relationship between the careers of physician, biological researcher, and science teacher);
   - complete subject matter equivalencies; and
   - pursue their own interests.

Appendix 2
Considerations in Identifying Potential Packages



A.I.R.* CAREER FAMILIES

I. Engineering, Physical Science, Mathematics, and Architecture
II. Medical and Biological Sciences
III. Business Administration
IV. General Teaching and Social Services
V. Humanities, Law, and Social and Behavioral Sciences
VI. Fine Arts and Performing Arts
VII. Technical
VIII. Business, Sales
IX. Mechanics, Industrial Trades
X. Construction Trades
XI. Business, Secretarial-Clerical
XII. General, Community Service, and Public Service

POTENTIAL PACKAGES: INITIAL LIST

- Applied Science
- Applied Mathematics
- Political Behavior
- American History
- Communications and Media
- Social and Behavioral Sciences
- Business, Sales
- Automotive Industry
- Physical Sciences
- Medical and Biological Sciences
- Technology and Science
- Community and Public Service
- Physical Fitness
- Fine and Performing Arts
- Craftsmanship
- Self-Employment
- Transportation Industry

STUDENT NEEDS AND INTERESTS

District Graduation Requirements

- English
- World Studies (History and Related Social Sciences)
- American History
- American Government and Related Social Sciences
- Mathematics
- Science
- Physical Education

Sample Career Exploration Areas

- Ecology and environment
- Communications and media
- Technology and science
- Careers for social change
- People-helping careers

Other Student Interest Areas

- Water pollution
- Prisons
- Film criticism
- Organic gardening
- Dramatic arts
- Woodworking

* American Institutes for Research

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Appendix 3
Standard Statement on Project Seminars

Project Seminars

One of the ways to make learning come alive is to talk about it -- to share what turns you on most, get help with problems, see if your insights make sense to others, and maybe even argue some about ideas or solutions. Project seminars are a series of meetings where students working in related subject areas can come together and rap about questions and issues common to the field they're all exploring. The meetings can be useful in a number of ways.

- First, they can help you with ideas for projects. If you don't already have one, listening to other students kick around their interests may trigger an idea of your own, some direction you hadn't thought of. If you do have a project in mind, these discussions can help you clarify and focus it, plus give you some good leads for resources to visit.
- You can't be sure what you know or how well you know it until you explain it to someone else. Trying out your findings on others, bouncing ideas or conclusions off them, and describing particular experiences can help you get a clearer grasp on what you're learning. You may find you know more than you thought or see that some of your answers need rethinking.
- Through your own project, you will be able to explore only some of the interesting ideas, techniques, issues, and careers related to this package. Your fellow students will have the same problem. But together, in the project seminars, you can learn from each others' research and experiences, thus expanding your knowledge of the field in general.
- In the same way, talking with guest speakers, viewing films, or visiting relevant community resources as a group will broaden your understanding of the discipline and related careers.
- Project seminars provide a resource you can tap to solve problems encountered in carrying out your project. If you're having trouble working with a particular Resource Person, finding sources of information about your topic, or deciding what kind of product will best communicate your findings, other students and the Package Coordinator can help you analyze alternatives and find a solution.
- Finally, you may discover that some students share your interests and concerns and would like to combine talents and energies into a group project. Working jointly you can sometimes tackle bigger problems and cover more ground.

Appendix 4

Standard Statement on Planning and Completing a Project

How to Plan and Complete a Project

Your project might begin with a desire to explore a career, to dig into a social or political problem, to work with a particular resource, or to earn credits required to graduate or to pursue your educational and career goals. Wherever you start, you will need shortly to decide what you will be doing, with whom, and what you plan to learn about or learn how to do through your project. You are essentially planning your own course of study, just as a teacher must plan a class. Your plans must be in writing so that you, your Learning Coordinator, and the resources with whom you are working all know what you hope to accomplish. Your plans will grow and change as you work on the project; make sure these changes are recorded and approved by your Learning Coordinator (LC). At a time agreed upon by you and your LC -- about one month before you plan to complete your project -- you will be asked to develop a final project plan which then becomes a learning contract you are promising to keep in return for the credit you seek. Below are some pointers for how to plan and complete a project. They offer a guide only. Where you will need to start and how you will proceed depends on how clear an idea you have of what you want to do. Beginning from scratch, you should do the following:

Finding a Topic

1. Read through the project ideas, sample projects, and lists of resources in the packages to find out what you can do and learn with the people and organizations who are ready to work with you.
2. Meet with your LC to discuss your interests:
    - what you want to explore -- a career, a subject, an issue, or a combination of these -- and the kinds of things you would like to learn;
    - which package you should use, who is coordinating it, and when the project seminar meets; and
    - which resources you want to or ought to contact.

280

3. Attend some project seminar meetings to:

   - get ideas, suggestions, and assistance in planning your project from the Package Coordinator and the other students and
   - broaden your knowledge of careers, issues, problems, ideas, and techniques related to the package.

4. Choose some resources that interest you, plan Orientation visits using a Project Sketch, visit the resources, discuss your ideas with them, and explore possible project topics. The purpose of your Orientations should be to help you find out what you want to learn about or learn how to do, where, and with whom. NOTE: You must go beyond these brief Orientations to really plan and complete a worthwhile project. You may wish to broaden your knowledge of an issue or career by visiting several resources and working with one or two at the Exploration level. Or you may wish to dig into a subject or career and develop some expert knowledge or skills through working with one resource for an extended period of time.

Developing a Plan

5. When you have settled on an area of interest, start planning your project on a Student Project Plan. See the sample projects in this package for models. If you have trouble understanding what your project should look like on paper, see your LC and the Package Coordinator. After three or four Orientation visits to resources, you should be able to at least do the following (and complete the appropriate sections of your project plan):

   - Describe the theme of your project.
   - Pose significant questions you will investigate.
   - List the resources you have used and plan to use in completing your project. (If no resources are available in your area of interest, you may have to recruit some yourself. Ask your LC and the Resource Analyst for help.)
   - Identify related reading or other research materials you will use and how you will use them.
   - Identify special requirements or prerequisites.
   - Estimate how long your project will take.

6. After two or three more visits with your resources, you should be able to do the following:

   - State what you want to learn about or learn how to do through your project (your goals) and how you will demonstrate you have learned it (your indicators). Be sure that your goals and indicators include at least one product. REMEMBER: You can change, refine, add to, or delete goals and indicators until the cutoff date decided upon by you and your LC, after which your project plan becomes a learning contract.

   - If you want someone in addition to your LC to evaluate your work (such as a Resource Person or the Package Coordinator), ask that person if he or she is willing to do it. Only those who have agreed to evaluate your products and/or performance should be listed as evaluators on page 3 of your Student Project Plan.

   - Be sure that your project will be worth the amount and type of credit you wish to receive. (With your LC, compare your project goals and indicators with the package goals using the goal checklist.) If you cannot meet the package requirements for the amount and type of credit you want with one project, do two.

   - Be sure to discuss your project topic with your resources and work with them to firm up your plan.

Completing Your Project

7. Work with your resources, do your research and related reading, and have weekly discussions with your LC, keeping him or her informed of your interests, goals, and activities.

8. Whenever possible, relate work you are doing in workshops or other supplementary activities to your projects. (For example, bring early drafts of project reports to your English instructor or tutor to have them reviewed and critiqued.)

9. Attend project seminar meetings to give progress reports, share your experiences, get help in solving problems you encounter, and learn how other students' projects and yours are related to a common subject/career area.

10. Wrap up your project and submit it for credit by:

    - completing products and performance tests which demonstrate what you have learned. (Products can be written reports or essays, photographic essays or drawings, audio- or videotape recordings, or other media. Performance tests can be oral reports, presentations, or actual tasks at a resource site.)

- having your products and/or performance reviewed and evaluated by the persons designated on your project plan. (Be sure your evaluators record their assessments on page 3 of your Student Project Plan. If you agree with the evaluation, add your initials. If you disagree, state your reasons in the "Comments" column.)
- completing a Student Project Summary Report evaluating your own work and requesting the amount and type of credit you wish to receive for your project.

11. Turn in your Student Project Plan, product(s), and Student Project Summary Report to your LC for review, evaluation, and assignment of credit.

Appendix 5

Sample Statement on Careers for Exploration

Careers You Can Explore

There is a wide variety of traditional and emerging careers in the field of communications and media. They vary greatly in work performed and skills and training required, but all are involved in seeking more effective ways of communicating something to someone. Through your project, working with resources in the community, and learning more about the problems and possibilities of this field, you can explore some of these careers and learn more about your own interests and goals in the process.

Written and Verbal Arts

- advertising copywriter
- advertising manager
- author
- dramatist
- editor
- journalist
- lecturer
- librarian
- linguist
- poet
- public relations manager
- publisher
- reporter
- researcher
- script writer
- speech writer
- translator

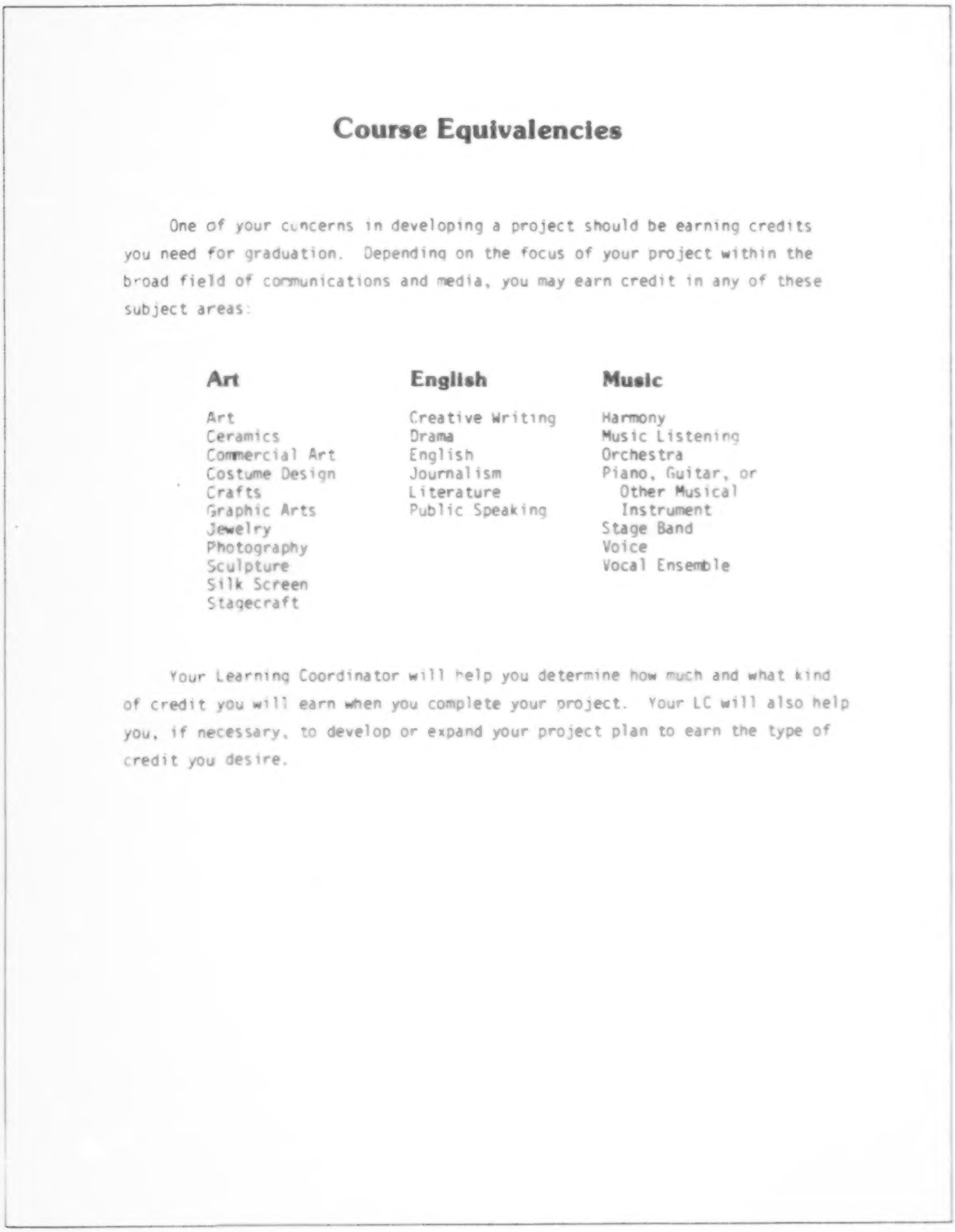
Media Arts

- book publisher
- broadcasting engineer
- camera operator
- cartoonist
- disc jockey
- film director
- filmmaker
- film producer
- graphic artist
- newscaster
- photographer
- play director
- play producer
- printer
- record publisher
- sound operator
- TV/radio announcer
- TV/radio host or hostess

Crafts, Fine Arts, and Performing Arts

- actress or actor
- architect
- art critic
- art curator
- art exhibit director
- art historian
- artist
- art teacher
- carpenter
- commercial artist
- composer
- conductor
- dancer
- disc jockey
- jeweler
- mime
- musician
- photographer
- potter
- singer
- sculptor
- weaver

Appendix 6
Sample Statement on Course Equivalencies



Course Equivalencies

One of your concerns in developing a project should be earning credits you need for graduation. Depending on the focus of your project within the broad field of communications and media, you may earn credit in any of these subject areas:

Art

Art
Ceramics
Commercial Art
Costume Design
Crafts
Graphic Arts
Jewelry
Photography
Sculpture
Silk Screen
Stagecraft

English

Creative Writing
Drama
English
Journalism
Literature
Public Speaking

Music

Harmony
Music Listening
Orchestra
Piano, Guitar, or
  Other Musical
  Instrument
Stage Band
Voice
Vocal Ensemble

Your Learning Coordinator will help you determine how much and what kind of credit you will earn when you complete your project. Your LC will also help you, if necessary, to develop or expand your project plan to earn the type of credit you desire.

CE

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EBCE

Experience-Based Career Education

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GUIDANCE AND INSTRUCTION

8. Orientation
9. Learning Coordination
10. Supplementary Curriculum

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EXPERIENCE-BASED CAREER EDUCATION

THE FAR WEST MODEL

EBCE

Experience-Based Career Education

8. Orientation

Orientation

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January 1976

Experience-Based Career Education Program
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Table of Contents

Page

INTRODUCTION 1

PLANNING THE ORIENTATION 2

- Preliminary Information 2
- Orientation Objectives 3
- Which Activities Should Be Used to Achieve Which Goals 4
- Who Will Be Responsible for Planning and Leading Which Activities 6
- Developing a Schedule of Orientation Activities 6
  - Free Time 9
  - Staff Meetings 9

SUGGESTED ACTIVITIES 10

- Assignment of Students to Learning Coordinators 10
- All-Student Meeting 10
- Entry Assessment 11
- Advisory Group Meetings 12
- Individual Student/LC Conferences 13
- Resource Site Visits 14
- Mini-Projects 15
- Open Houses for Resources and/or Parents 16
- Social Activities 17

INVOLVING RETURNING STUDENTS IN THE ORIENTATION OF NEW STUDENTS 17

ORIENTING INDIVIDUALS OR SMALL GROUPS OF STUDENTS 18

CREDIT ASSIGNMENT 19

ORIENTATION WORKSHOPS 21

- Getting Acquainted Workshop 23
- Learning Resources Workshop I 26
- Planning Workshop 32
- Career Exploration Workshop 35
- Project Planning Workshop 39
- Learning Resources Workshop II 42
- Program Planning Workshop 45

Page

APPENDICES

1 - Far West School Orientation Goals and Objectives 51
2 - Student Orientation Objectives Checklist 55
3 - Example of an Orientation Schedule 57

List of Exhibits

Page

Exhibit 1: Activities Recommended for Accomplishing Orientation Goals 5

Exhibit 2: Recommended Assignment of Staff Responsibility for Orientation Activities 7

Exhibit 3: Levels of Student Involvement With Resources 27

Introduction

Because Experience-Based Career Education (EBCE) departs in some fundamental ways from what most students have experienced as "school," they need a brief period of initiation -- time to find out what's expected of them and how the learning process works -- before they can participate fully in the program.

Many students, accustomed to a more passive learning role, are likely to experience some degree of "freedom shock" when confronted with the prospect of deciding for themselves what they want to learn, where, and how. Well-planned orientation activities will gradually phase students into their new role.

Even if students adapt easily to change, there is much to become familiar with: what it means to explore careers firsthand at a variety of community sites and to study academic subjects there; what Resource Persons are and what they have to offer; what a project consists of and how credit is awarded for one; and so on. Students also need some initial training in program procedures, primarily by using them to solve short-range problems, so they can master the rudiments of planning and inquiry essential to the EBCE learning process.

While getting their bearings and adjusting to new ways of doing things, students need to begin thinking about what they want to get out of EBCE, the kind of help they will need, and where they would like to start. By the end of orientation, they and you should have enough information about their interests and needs to begin program planning.

A good introduction, then, is indispensable to help students through the transition from traditional classroom to experience-based, self-directed learning, to acquaint them thoroughly with the goals and procedures of the program, and to set the proper tone for the rest of the year.

The purpose of this handbook is to help you prepare such an orientation. It outlines decisions that must be made, offers guidelines for planning, describes recommended activities, and suggests strategies for carrying them out. The handbook assumes you are already familiar with the Far West Laboratory (FWL) model of EBCE, as described in the Program Overview. (See Volume I.)

Planning the Orientation

Preliminary Information

Before you can begin orientation, you need to make sure you have clearly in place what it is you intend to orient students to -- the essential features and procedures of your EBCE program. The point is obvious, but worth mentioning in case some decisions have been postponed or agreement on certain points has not yet been reached. To plan orientation, the staff needs to have a common understanding of the following:

- program goals and objectives (skills and knowledge graduates should possess);
- staff roles and responsibilities;
- available resources and what students can do and learn at each resource site;
- alternative activities from which students can choose to meet program requirements and their own goals (individual projects, or supplementary learning activities such as tutorials, high school or external courses, independent study, or small-group EBCE workshops);
- criteria for an acceptable student program (e.g., 25 hours per week in school activities; roughly 50% of the time available to work on projects with resources in the community; a semester program worth at least 25 EBCE credits; and so forth);
- credit assignment criteria and procedures;
- forms that will be used (especially those for program planning and progress monitoring);
- the schedule for the school term -- when such things as the Long Term Plan should be completed, Student Project Plans submitted, and products completed (see Learning Coordination);
- how advisory groups will be formed, organized, and structured;
- other regularly scheduled activities (such as seminars of students working on related projects); and
- facilities available for meetings of advisory groups, workshops, or larger groups of students (since available space will affect scheduling of orientation activities).

If any decisions about these programs are yet to be made, refer to Learning Coordination, Supplementary Curriculum, or other appropriate FWL-EBCE handbooks for information and recommendations.

Planning a student orientation program consists of four basic steps:

1. determining what you want orientation to accomplish, in terms of specific objectives;
2. selecting activities that will achieve the objectives;
3. deciding who will be responsible for planning and leading each activity; and
4. developing a comprehensive schedule of events, specifying which activity will be completed when.

After outlining these four planning steps, noting the kinds of decisions and issues that must be resolved, the handbook will describe recommended orientation activities and strategies for carrying them out.

Orientation Objectives

The broad purpose outlined in the introduction can be distilled into three main goals:

1. An initial assessment should be made of the students' needs and interests.
2. Students should become acquainted with EBCE's intended outcomes, staff roles and organizational structure, rules of accountability, and learning resources.
3. Students should begin to internalize the EBCE learning process, by finding out how to use procedural aids (from Resource Guides to project planning packages), by visiting resources in the community, and by beginning to develop the planning and inquiry skills necessary to participate in EBCE.

Any orientation must achieve these goals if students are to function successfully in EBCE. But how they are achieved will depend on the particular ways you define achievement -- the behavior or indicators of success you are aiming for. These will vary according to program design and staff judgment.

So the first planning step is to translate these general goals into a set of specific objectives that suit the needs of your program.

As an illustration, the sample in Appendix 1 breaks the third goal down into ten separate objectives, ranging from the student's being able to identify what units he* needs for graduation, to his completing a mini-project according to a plan specifying goals and indicators, resources and activities, evaluators and due date.

But quantity is not the point, nor is any military rigor in specificity. The aim here is simply to formulate the purpose of your orientation in terms that will give you the best chance of achieving it. These objectives provide clear guidelines for planning appropriate activities, and later can serve as checks to make sure everything gets done.

Which Activities Should Be Used to Achieve Which Goals

Particular activities recommended to achieve each of the orientation goals are listed in Exhibit 1. After reading the detailed descriptions which follow (beginning on page 10), decide which activities will best meet your needs, whether to prepare additional ones, and how to sequence them. As you make these decisions, keep in mind that orientation should be "experience-based," initiating students through actual experience guided and monitored by staff. The assumption is that students are not likely to perceive the necessity for using a Resource Guide or completing a Project Sketch until they've had some field experiences which dramatize the need for such preparation.

Students should be asked to begin visiting resources and planning mini-projects very early in the orientation period. These experiences must then be reinforced by activities at the school that will help students interpret what they have learned in the field, solve problems they may encounter at resource sites or in planning projects, and understand how all their activities can be integrated into individualized programs that meet their needs and interests. Activities selected to meet orientation goals should supplement

---

* Throughout these volumes we have generally used the masculine pronouns *he*, *him*, and *his* in instances where we obviously mean to refer to both male and female students, staff, or resources in the community. We were unable to find an alternative which was not cumbersome.

Exhibit 1

Activities Recommended for Accomplishing Orientation Goals

GOAL	RECOMMENDED ACTIVITY
1. [illegible] INITIAL ASSESSMENT OF: a. student needs	*Advisory group meetings* - Administer nationally-normed math and reading tests (unless recent assessment is already in student's file). *LC/student conference* - Review student's previous record; discuss post-high school career and educational plans.
b. student interests	*Advisory group meetings* - Student completes Student's Initial Planning Worksheet; LC notes student's expressed interests in discussions. *LC/student conference* - Discuss student's expressed interests (based on Student's Initial Planning Worksheet).
2. INFORM STUDENTS OF: a. EBCE organizational structure	*All-student meeting* - Introduce staff; describe staff roles; announce LC advisory groups.
b. administrative procedures	*All-student meeting* - Explain transportation arrangements, student accountability, rules, and sanctions.
c. orientation plans	*All-student meeting* - Distribute orientation schedule; explain length, kinds of activities, and expected participation. *Advisory group meetings* - Discuss purpose, LC's expectations, scheduled activities, student's options, required activities, and credit assignment.
3. HELP STUDENTS: a. acquire information about learning resources that are available	*Advisory group meetings* - Workshops, discussions, rotating teaching, team teaching. *Individual student activities on site* - Conferences with Learning Coordinator, Skills Specialist, and Resource Analyst; using resource file; reading packages; browsing through Resource Center (or section of school library which contains EBCE materials). *Resource open house* - Invite RPs and RO Coordinators to school site to meet students and discuss what students can do at their resource site.
b. understand the curriculum structure	*Advisory group meetings* - Use workshops, team teaching, discussions, and rotating teaching to explain projects, available supplementary learning activities, packages (if they are used), forms, credit assignment, program requirements, program planning, individualized scheduling, student's responsibilities, and LC's expectations.
c. develop skills and learn procedures necessary for EBCE	*Advisory group meetings* - Use team teaching, discussions, group problem-solving, rotating teaching, workshops, simulations, and role plays to teach students how to identify and select resources, contact resources, and prepare for visits; plan projects; plan their program; use packages; write goals and indicators; and use supplementary learning activities. *Group Orientations with resources* - Teach students how to visit resources, ask questions of resources, and respond to resources' questions. *Individual field activities* - Teach students how to contact resources; how to get to resource sites; how to arrange visits, ask questions of resources, and respond to resources' questions. *Individual activities at school* - Students plan mini-projects, locate information, meet with LC and Skills Specialist to learn subject and credit requirements (and any other requirements) for graduation, plan supplementary activities, and write goals and indicators. *LC/student conferences* - Plan programs; plan projects; schedule activities; and assess needs, interests, and abilities.

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their experiences with discussions, problem-solving, role plays, and so forth. It is essential that the students' first days in EBCE expose them to the substance of the program -- to resources, to the inquiry process, to the elements of effective planning and problem-solving. The use of program forms as tools to aid students in planning and reporting their activities can then be explained in a way that makes clear their utility.

Who Will Be Responsible for Planning and Leading Which Activities

Some activities demand the attention of a specific staff member. Others are not as clear-cut. For example, if the staff decides to arrange some group activities with resources, the Resource Analyst should plan and schedule them, and may be expected to attend them as well. Learning Coordinators (LCs) might also accompany the groups to resource sites, so they will be better prepared to lead later discussions, workshops, role plays, or other activities at the school to reinforce the learning that took place. (Exhibit 2 lists suggested staff responsibilities for various activities.)

Developing a Schedule of Orientation Activities

The first step in developing a schedule or calendar of orientation activities is for the staff to agree upon some milestones: what should be accomplished by the end of the first week, the second week, and the third week of orientation. For example, it might be decided that by the end of the first week all students should have completed entry assessment tests (if any), filled out at least one Project Sketch, and visited at least one resource; and that the staff should have informed students of the organizational structure and administrative procedures of the program and conducted the first Learning Resources Workshop (discussed on pages 26-31). When such milestones have been agreed upon, one or more staff members should be given responsibility

Exhibit 2

Recommended Assignment of Staff Responsibility for Orientation Activities

ORIENTATION ACTIVITY		RESPONSIBLE STAFF
DESCRIPTION	TASK	
All-Student Meeting	Lead	Program Director
Resource Open House	Coordinate	Resource Analyst
Open House for Parents	Plan	Program Director and Learning Coordinators
	Lead	Program Director
Group Orientations with Resources	Plan	Resource Analyst
	Lead	Learning Coordinators
Initial Assessment	Assess reading, writing, and math skills	Skills Specialist
	Assess interests and course and credit needs	Learning Coordinators
Advisory Groups	Lead	Learning Coordinators
Workshops	Conduct Getting Acquainted Workshop	Learning Coordinators
	Conduct Learning Resources Workshop I	Learning Coordinators *(and Resource Analyst as appropriate)*
	Conduct Planning Workshop	Learning Coordinators
	Conduct Career Exploration Workshop	Learning Coordinators *(and Resource Analyst as appropriate)*
	Conduct Project Planning Workshop	Learning Coordinators
	Conduct Learning Resources Workshop II	Learning Coordinators
	Conduct Program Planning Workshop	Learning Coordinators *(and Skills Specialist as appropriate)*

for developing the specific schedule of orientation activities, considering not only what the staff hopes to accomplish by when, but other constraints as well, such as the availability of employer/community resources for group Orientations* and the availability of space and staff for various meetings and workshops. The actual calendar or schedule of orientation events may change every year, while the milestones may remain relatively constant. An example of an orientation schedule from Far West School (FWS)† is included as Appendix 3.

The milestone schedule is primarily a tool for the staff, providing goals by which to judge both student progress and the effectiveness of the orientation. But it also tells students roughly what is expected of them. Some students will complete orientation objectives and activities sooner than others. If, however, a significant number of students are unable to complete an objective or activity by the deadline, the staff will have an indication that something is wrong: perhaps the schedule is unrealistic; or the importance of the activity was not sufficiently stressed; or students did not adequately understand what they were supposed to do.

The schedule also provides guidelines for the completion of orientation. Although few students can learn everything they need to know in three weeks, a cutoff date is necessary so that they can plan and work on their actual learning programs and projects within the time remaining in the term. Staff should be careful to prevent students from spending the entire term working on orientation activities and objectives. One way to do this is by giving an early deadline for the completion of the Long Term Plans. This way, students can anticipate what they want and need to do over the course of the year and, consequently, what needs to be done the first term to work toward their goals at an acceptable pace.

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* To avoid confusion over the two uses of the term "orientation," the word is printed in lower case when referring to students' orientation to the program and capitalized when referring to initial visits with resources.

† The Far West Laboratory's EBCE model was developed and tested at Far West School in Oakland, California. Throughout this and other handbooks, the experiences of Far West School staff and students are used to illustrate key points.

Free Time

In blocking out the sequence of planned activities, you will need to decide how much flexible time to allow students. While structured activities are necessary during orientation to communicate program information and teach EBCE planning skills, students should also have some free time available -- time which they have to manage and use productively -- so that they experience early this essential aspect of EBCE. Such time permits students to work individually -- conferring with their Learning Coordinator, browsing through the resource files to select a resource to contact, or consulting the Skills Specialist about supplementary learning activities. Obviously, it would be a contradiction in terms to talk about exact quantities of flexible time students will need. Readiness for resource visits and individual activities with minimal direction from the Learning Coordinator will vary not only from student to student, but from one community to another. The orientation should be planned to provide some student-managed time each week -- perhaps three to five hours the first week, five to ten the second week -- until students have at least half their school time available for resource activities. If, toward the end of the first week of orientation, the staff finds that students appear either to have too much time on their hands, or to need more, the orientation schedule can be rearranged accordingly.

Staff Meetings

It is essential that the staff plan to meet regularly during orientation, preferably every day (at least for the first week), to review the day's activities, share ideas and problems, and adjust the orientation plan and schedule as unforeseen events dictate. They should continue to meet at least weekly to discuss strategies, activities, and methods that have or have not worked well, so that all can learn from their experiences and draw on each other's expertise.

Suggested Activities

The activities discussed below are geared to a three-week orientation, although staff members may decide that their student orientation goals and objectives can be met in less time. Those programs with terms less than a semester long may especially need to consider shortening the orientation to ensure students sufficient time to plan and complete full-length projects and any supplementary activities they choose.

Assignment of Students to Learning Coordinators

Students should be assigned to Learning Coordinators prior to the opening of school, if possible, so that advisory group assignments can be announced to students on the first day of orientation. At Far West School, the staff tried to expand learning opportunities by balancing each advisory group for sex, grade level, ethnicity, and new and returning students. Assignments to advisory groups were usually for the duration of the term; students were allowed to change LCs only after serious consideration by the student, the current LC, the proposed new LC, the student's parents, and the Program Director.

All-Student Meeting

The all-student meeting is useful for introducing students to the staff and to the purpose and activities of orientation. At the same time, the orientation schedule and descriptive program materials can be distributed and advisory group assignments announced. Program regulations and administrative procedures can be explained to the entire group at once. A tour of the facilities might also be in order.

Entry Assessment

Assessment should begin during the first week, so LCs and students will have the information they need to start program planning by the end of orientation. Reading, writing, and math skills need to be assessed so that students and their LCs can select appropriate learning activities (projects, tutorials, workshops, classes, or individualized programmed instruction). At Far West School the staff used nationally-normed reading and math tests and had students write a 250-word essay requiring about an hour to complete. Existing records of students' past performance on such tests or other achievement records in those areas can be used if available. Test results or other records should be used in conjunction with Learning Coordinators' and students' own assessments of their basic skills abilities and needs.

Far West School staff discovered that lengthy tests are a poor introduction to the EBCE program. In the fall of 1973, all FWS students were administered a three-hour battery of diagnostic tests. They were bored and unable to understand the need for such an effort, limiting the utility of the results. Diagnostic testing, especially interest and aptitude testing, should be responsive to the needs and motivation of the individual student. Tests administered to all students upon entrance should be kept to the essential minimum; and the use of test results -- how they will benefit the students -- should be thoroughly explained in advance of testing.

Students' interests can be assessed through the Student's Initial Planning Worksheet, Learning Coordinators' observations, and discussions between the student and his LC. If students are unsure of their interests, there are a variety of instruments (such as the Holland Self-Directed Search or the Kuder Occupational Interest Inventory*) that students can use to help them identify fields they might begin to explore. Students should be encouraged to use more than one instrument as well as other sources of information whenever possible. Test results and the students' past experiences should be used to identify interest areas which they can then check out through their activities in the program.

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* These instruments should be ordered well in advance of the opening of school so that they will be available when students need them.

Learning Coordinators have to identify graduation subject and credit needs for each of their students. This is done using the student's transcript and transferring the information to the Long Term Plan so it will be available when the student and LC do long-term planning together.

Learning Coordinators also need to assess the amount and type of supervision and direction each student needs. By observing students in group and individual activities, noting whether and how well they are able to meet orientation objectives (identifying and contacting resources, planning and carrying out a mini-project, and so forth), you can judge how much individual assistance each student requires. (The Oral Communications Rating may be used to assess and record the students' ability to communicate with resources in the community. See Learning Coordination for this and other instruments.)

Advisory Group Meetings

An important means of helping students internalize the EBCE learning process is the regularly-held advisory group meeting. With the Learning Coordinator acting as discussion leader, it provides an open forum for students to share ideas, clarify interests, and interpret community experiences. In the course of such discussions, students also learn how to ask relevant questions, define problems, and examine solutions. (Learning Coordination discusses instructional techniques used in advisory groups.)

During orientation, these meetings will consist mostly of workshop sessions in which students receive some concentrated training in key program areas: project planning, using resources, and career exploration. (The workshops are described in detail beginning on page 21.)

Individual Student/LC Conferences

Although staff will probably want to cover as much material as possible in a group setting to save time and allow students to benefit from each other's questions, problems, and experiences, there are some things that can only be done in individual conferences. The results of entry assessment, for example, should be discussed in terms of long- and short-term planning and the student's self-assessment of his skills, needs, and interests. If the student disagrees with test results or transcript records, he and his Learning Coordinator should discuss why, decide whether some other method of assessment should be used, and, if so, determine what method.

Some students hesitate to express their thoughts or raise questions in a group. Others will need help clarifying their interests and values. These students in particular will require time alone with their Learning Coordinator. To complete long- and short-term planning near the end of orientation, LCs will need to probe a student's plans, goals, values, and reasons for entering the program. The time necessary for conferences will vary from student to student. A few students may need only a half-hour or an hour of the LC's time during the entire orientation. Others may need as much as two hours a week.

* * *

Throughout the orientation period, in both individual conferences and workshop sessions, the Learning Coordinator should seek to establish realistic expectations for his students, by prodding them to question, allowing them to make their own decisions (but not necessarily without counsel from him), and helping them assume responsibility for their actions. It involves a balance between instructing and facilitating: while teaching students program procedures, you are at the same time getting students to use them to think and act for themselves.

Resource Site Visits

Students can't really find out what "experience-based" means until they meet a Resource Person or two and get a concrete notion of the kinds of things they can do and learn at their sites. The questions, problems, and observations students bring back to workshop discussions will help focus their training in the use of program procedures and forms and give impetus to their development of planning and inquiry skills. So it's important for students to get out into the community as soon as possible. Some of these first resource Orientation visits can be prearranged by staff for groups of students.

Some students find group Orientations comfortable introductions to the process of meeting and dealing with resources because they are planned and arranged by the Resource Analyst and no one student must confront the resource alone. Some resources, especially Resource Organizations, prefer such group Orientations, since they tend to reduce the number of individual calls and requests to which the resource must repond. (Group Orientations with resources usually are arranged for no more than 12 to 15 students and frequently are attended by only five to ten.)

Group Orientations can help prepare students for individual resource visits by breaking the ice and perhaps by whetting some interests. Nonetheless, students need to learn how to independently contact resources and arrange their own visits. They also need to learn how to work in one-to-one situations with resources. That is, group Orientations alone are not a sufficient introduction to the EBCE learning process. Students should also have the experience, during orientation, of planning, arranging, and completing a resource visit on their own.

As a minimum, each student should participate in two Orientations during the first two weeks of school. (At least one of these should fall between the workshops on learning resources so students can draw on their community experiences for the second workshop.)

Students who can visit resources sooner and more often should be encouraged to do so; adherence to the schedule should not be so strict that students who catch on quickly are held back, so long as their activities are monitored to make sure they are prepared for their visits and are getting maximum benefit from them. On the other hand, a student who visits a resource before he is ready -- before he has read the Resource Guide, has given some thought to the questions he intends to ask, and feels reasonably confident about going -- could have the kind of negative experience that dampens his incentive to learn by doing. So the schedule of activities must permit Learning Coordinators to exercise judgment in prompting early visits, releasing some students to forge ahead with project planning and resource visits, while working individually and in small groups with those who need more preparation.

Mini-Projects

Students' initial visits to resources are used to develop mini-projects. These are projects limited in size and scope, designed to engage students in EBCE learning processes and activities early in the term, on a manageable basis. They are also designed to help Learning Coordinators determine the amount of supervision each student will need in planning and carrying out his program. At Far West School, it was required that the mini-project:

- take 15 to 30 hours to complete;
- include one goal each related to career development (learning about careers and about oneself), applied basic skills (acquiring and communicating information), and life skills development (decision-making, problem-solving, interpersonal, or inquiry skills);
- include two or more related Orientations or an Exploration with a resource;
- include a product; and
- be submitted for credit no later than by the end of the fifth week of school.

(The mini-project did not have to meet the goal requirements of a project planning package.)

Open Houses for Resources and/or Parents

One of the problems of a program in which students are all working on different projects throughout the community is that the students and the many different resources involved may sometimes feel dissociated from the school and from each other. An open house at the beginning of the year which gives resources an opportunity to meet the staff, see the school, and talk to some students they might not otherwise see can help counteract such feelings of alienation. It is also a good device for allowing students to meet resources in the more relaxed circumstances of their own environment. Each resource could be asked to describe briefly what he or she does and what students can do and learn, thus supplementing written information in the resource files.

The major problem with an open house is scheduling. If it is held during the day, some resources will not be able to leave work. Others, if there is not careful groundwork, may not want to give up an evening to such an event. There might be poor attendance, which students could interpret as lack of interest on the part of resources. A possible solution is to schedule the open house on two separate days, one session during working hours and the other in the evening, so that more resources might be able to attend than otherwise.

Most parents will not have visited the school since their son or daughter first applied to the EBCE program, and may not have a clear understanding of how it operates. (Parents of Far West School students sometimes expressed surprise when they learned the extent to which students are responsible for planning their own programs and projects or that students receive credit only for work completed, not just for attendance.) An open house will enable the parents to meet one another and the entire school staff, learn which Learning Coordinator will be working with their child, and acquire a better understanding of the program. If not during orientation itself, an open house for parents should be planned fairly early in the school year.

Social Activities

If the EBCE program is located at a facility separate from the regular schools, some students may miss the social activities that are an integral part of high school life. When students are drawn from several high schools within a district, they come from different parts of the community, meet for a few hours for learning activities, disperse to a variety of resource sites, and return home. Social events may help allay feelings of isolation and also give students (and staff as well) the chance to get to know one another on an informal basis that can increase their ability to work together. Furthermore, social events can be a welcome break from the intensity of the orientation schedule. Possible activities include picnics, potluck dinners, and parties.

Involving Returning Students in the Orientation of New Students

After the first year of operation, anywhere from one-third to two-thirds of the student body may be returning students. While returning students may need to be reminded of EBCE policies, informed of changes, and urged to brush up on various program planning skills, generally they will be able and anxious to plan their programs and start new projects immediately. Returning students should not be required to again complete the full set of orientation objectives and activities; however, they may be able to assist EBCE staff in providing orientation to the program for new students. These are some of the ways returning students can provide support to the staff during orientation:

- They can serve as "peer instructors" during workshop sessions, helping new students learn project planning techniques, how to contact or interview resources, and how to complete required forms.
- They can be called upon to share their experiences and activities from previous years as examples of the things a Learning Coordinator is trying to convey through advisory groups and workshops. (Some examples are problems and successes with resources, ideas for projects, how their interests have changed with new experiences, and what they look for in exploring a career.)

- Returning students might take new students with them when attending their first Orientations with resources. Returnees could point out how to make the best use of resources and set an example for new students. If new students are visiting resources a returning student used the previous year, a quick session with the returnee could be advantageous.

- Finally, returning students could lead all or part of a workshop, using the procedures in this handbook and their own program experiences. At Far West School, in fact, it was found that the student workshop leaders internalized the content of the workshops and experienced the most growth. If returning students are used as workshop leaders, their LCs should coach them in planning the workshop, be present and observe (but make suggestions only if necessary), and help them evaluate their effectiveness afterward.

If it can be arranged, returning students ought to begin school about a week earlier than the new ones. LCs can use some extra time to explain to those interested how they can help orient the new students and also to get all returning students started on their own programs. If some program planning is completed for these students before orientation begins, they can work on projects and other activities during it.

Orienting Individuals or Small Groups of Students

The information in this handbook is designed primarily to help an EBCE staff plan an orientation program for a substantial group of students (20 or more) at the beginning of a school term. When the program has been operating for a term or more, however, the staff may well have to orient an individual or small group of students entering either at the beginning of a term or after school is in progress. The need to conserve staff time and energies to work with students already fully engaged in EBCE activities will demand careful selection of orientation activities for such new students.

Depending on the size of the entering group, orientation workshops may well be replaced by individual student/LC conferences. New students can be introduced to EBCE learning resources by accompanying more experienced students on field visits rather than through prescheduled group Orientations or resource open houses. The Far West School staff employed a "buddy-system" approach when one or two students entered in midterm, pairing the new student with an experienced student who helped the fledgling learn about the EBCE resources and procedures, as well as how to complete various forms.

Whether orientations for individuals or small groups of students are conducted primarily by other students or staff, each Learning Coordinator should monitor his or her new students' progress in the student orientation and assure that they are receiving the help they need to master program procedures.

Credit Assignment

The amount and kind of credit awarded for successfully participating in orientation activities must be decided by the staff before orientation begins. At Far West School, credit for orientation activities was tied to specific objectives. Students who demonstrated that they had met the required objectives were awarded credit. In order to receive 5 EBCE credits (½ Carnegie unit) for orientation, FWS students had to:

1. complete orientation objectives 3.1, 3.2, 3.4, 3.6, 3.8, and 3.10 (see Appendix 1);
2. make an appointment with a resource over the telephone and keep that appointment;
3. complete entry assessment; and
4. participate in all orientation workshop sessions of their advisory group.

The Student Orientation Objectives Checklist (Appendix 2) was used to record progress toward achieving orientation credit. Credit for orientation could be assigned as early as the end of the third week, but no later than the end of the sixth week of school.* To receive credit, the student had to submit the Checklist along with the Student Project Plan, a product, and the Student Project Summary Report for his mini-project. The mini-project was worth a maximum of 2 EBCE credits. Completion of all other orientation objectives was worth 3 credits. At FWS, these credits were awarded in career development. Returning students could not receive duplicate credit for orientation in their second year.

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* Students not completing a mini-project and orientation objectives by that time were encouraged to start planning regular-size projects and spend extra time and energy on their EBCE work to make up for the time lost.

One purpose of orientation is to help students understand the entire EBCE learning process through experience: planning a project, using employer/community resources, completing products and accomplishing other individual goals, participating in advisory groups, and receiving credit for completed work. For these experiences to be meaningful, Learning Coordinators must evaluate the products of mini-projects as soon as they are submitted and either award credit or return them to the student with a deadline for the completion of needed additional work. (At Far West School, students had to finish mini-projects by the end of the fifth week of school; Learning Coordinators had to assign credit for orientation by the end of the sixth week.) If no credit is given for incomplete or unsatisfactory projects, Learning Coordinators should make sure that this too becomes a learning experience for the penalized students -- that is, they understand they must learn to plan their activities better, manage their time more intelligently, and work harder.

Orientation Workshops

The purpose of these workshops is to give students some concentrated training in the fundamental processes of EBCE, so that by the end of orientation students will have mastered them sufficiently to be able to plan and carry out their learning programs. Workshop activities are designed to reinforce and clarify EBCE goals, explain the use of program procedures and forms, prepare students for resource visits, and develop their skills in planning, inquiry, problem-solving, and decision-making.

The particular workshops described below have been used profitably at Far West School; however, you may wish to design others to meet specific student needs. Each workshop description contains a statement of purpose; a list of materials needed; major points that should be made; and a suggested strategy. A combination of several teaching methods can be used, including group problem-solving, discussions, simulations, role plays, and brainstorming. The Learning Coordinator can keep the advisory group together as a unit or divide it into smaller groups depending on the content of the workshop and the teaching technique used. The workshops, addressed to the Learning Coordinator, are described in the recommended sequence for conducting them.

1. Getting Acquainted - Getting to know one another, establishing rapport and an atmosphere of free exchange of ideas, and helping students start thinking about what they want to learn (recommended first day).

2. Learning Resources I - Helping students think about using people as learning resources; showing students how to find resources and prepare themselves for visits (recommended second day).

3. Planning - Introducing students to the purpose and elements of planning.

4. Career Exploration - Addressing the questions: How do you explore a career? Why learn about careers? What do you want to know about a job? What are some factors you might consider when you evaluate the desirability of a particular career?

5. Project Planning - Helping students learn how to develop a project from a vague idea.

6. Learning Resources II - Reinforcing the content of Learning Resources I; dealing with problems students have experienced since that workshop in finding, preparing for, and visiting resources.

7. Program Planning - Asking students to think about long-range goals and alternatives and how these will affect their high school programs; planning a term's program including alternative ways of meeting needs and interests, day-to-day scheduling, time management, and criteria for an acceptable program.

Getting Acquainted Workshop

In this workshop students should get to know one another and you, their Learning Coordinator. You can begin gathering information about your students' interests, values, and goals, while asking them to think about what they need and want to learn.

The meeting is meant to be an icebreaker, to establish a comfortable atmosphere and good rapport, and to challenge students to start thinking in terms of using the EBCE program for their own purposes (including deciding what those purposes are). There is no need to overload students on the first day. What doesn't get done can be picked up in another advisory group meeting.

You should:

1. Establish an open, non-authoritarian atmosphere which encourages freedom of expression and a sharing of ideas.
2. Get students thinking and talking about what they want from school and what they think is worth learning.
3. Help students begin realizing that in pursuing genuine interests they will have to take initiative and assume responsibility for their own learning.
4. Challenge the students but don't overwhelm them -- let them play a part in setting the pace.

Materials Needed

You will need a chalkboard or a flipchart and copies of the orientation schedule to give each student. You may wish to get 3" x 5" cards for students to use as name cards.

Major Points to Discuss

1. What students think is worth knowing.*
2. Purposes of a high school education.

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* Teaching as a Subversive Activity by Neil Postman and Charles Weingartner (New York, Delacorte Press, 1969) contains valuable strategies for getting students to discuss what they think is worth knowing.

3. The knowledge and skills people in our society need in order to function.

4. The community as a source of information.

5. The schedule of activities for orientation.

6. What will be expected of students during the orientation.

Recommended Strategy

There are several ways to introduce yourself and the students to each other and create a relaxed atmosphere for this session. The activities described below are suggestions which you may or may not wish to use. If you are already aware of a technique you prefer, use it instead.

1. Introduce yourself: who you are, where you have been, what you have done, why you are here, your interests and hobbies, something you think you do well, something you would like to do better, people you admire, and some of your habits and idiosyncracies. Talk long enough to set the pattern (the students will probably be less open than you), but not so long that students lose interest in participating themselves. Ask each student to share the same kinds of information.

2. Distribute name cards -- 3" x 5" cards with the names hand-lettered will do. Ask the students to choose four items from the following list (or make up your own) and have each person, including yourself, write his responses on his name card. Or simply have each student write his answers on a plain piece of paper.

   - one thing about yourself you are proud of
   - the name of a famous person you would like to be like
   - someplace you would like to live (other than your present home)
   - what you like to do most and what you like to do least
   - something you have in your home that you are proud of
   - four words that describe you, ending in -able
   - three jobs you would like to try for a year

   Then ask participants to share and explain their responses. Everyone need not share. An individual's wish to pass should be honored. It will help if you start it off.

Either of the above activities may lead into a discussion of individual values, interests, goals, and the purposes of education. If not, try the following activities to stimulate such a discussion. Use as many as time allows.

3. Lead a brainstorming session on what's worth knowing -- what should you know or know how to do by the time you graduate from high school? Are there some things all high school students should know? After the students have generated a list of things they believe they should know, have them narrow it down to what they think they could learn in the two or three years they will spend in high school. It is not intended that the group arrive at a consensus, but that they share their ideas with one another.

4. Introduce your students to the idea of asking questions as a way of starting an inquiry and encourage them to begin thinking about people in the community as sources of information. Pick one of the items from the list just developed and ask what exactly they would want to know about it. The group may be able to develop a list of hard, substantive questions. More likely, they will discover that they don't know enough about the topic to pose really significant questions. If so, ask where they might get answers to the questions listed, and how they could learn enough about the subject to ask more questions. Some possible discussion leads are: Who would know about that? Can you identify some information sources (books, experts in the field, films, newspaper articles, etc.)? People who work in what types of jobs would know about this? What people might have different points of view on this issue? Why?

Be sure to leave sufficient time to distribute copies of the orientation schedule and explain it, and to convey your expectations of students' behavior. Explain that orientation is a decision-making period: after students know more about EBCE, they may choose to return to the regular high school program; similarly, EBCE staff may determine that the program will not meet the needs of some students. Explain why this may happen, how students have control over it by the decisions they make, and steps that would be taken before a student leaves the program (for example, a conference with the student and his parents, or a discussion with the student's counselor).

Learning Resources Workshop I

The purpose of this workshop is to help students learn how to locate and use EBCE learning resources, especially Resource Persons (RPs) and Resource Organizations (ROs). It should take place before students attend their first resource Orientation and may require more than one session to complete. Part II (on page 42) will build on what students learn from their first resource visit.

You should:

1. Demonstrate how to use the resource center files (and project planning packages if adopted) to identify Resource Persons, Resource Organizations, and Community Resources to visit.
2. Help students develop interpersonal skills such as making appointments and interviewing resources.
3. Help students prepare for their resource visits by carefully reading the Resource Guide and formulating questions on the Project Sketch form.
4. Discuss the expectations students and resources may have of each other and how to make sure they are realistic;
5. Teach students how to make the most of the learning activities available at various resource sites (e.g., by expressing specific interests to the resource, showing the resource the Project Sketch or Project Plan, requesting reading suggestions, taking notes, etc.).
6. Discuss with students the importance of keeping appointments, being on time, establishing regular schedules for Explorations and Investigations, and keeping the resource informed of plans, schedule changes, vacations, and so forth.

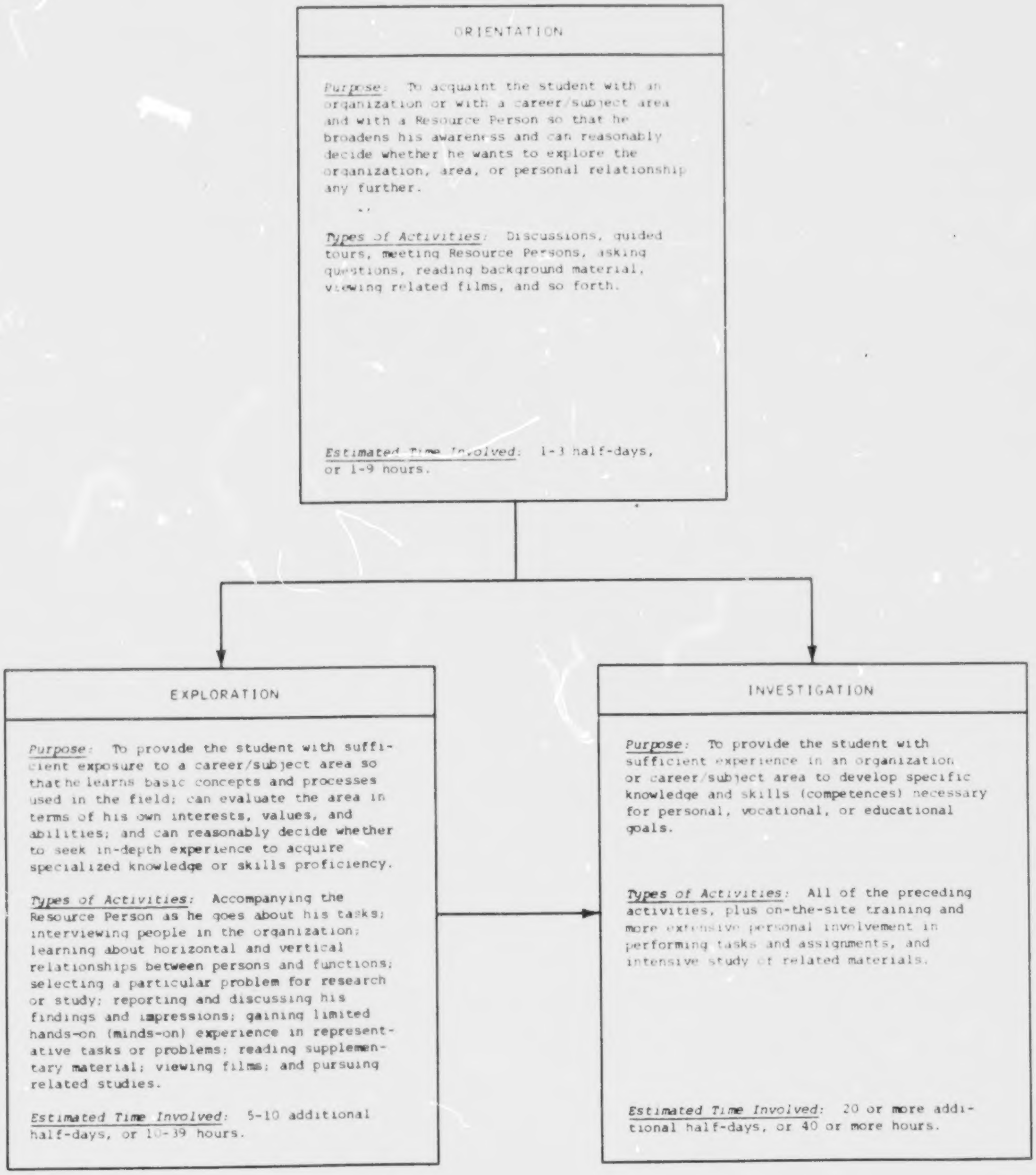
Materials Needed

Copies of the following materials are helpful training aids: Levels of Student Involvement with Resources (see Exhibit 3); project planning packages; Job Information Questionnaire; Career Orientation Guide; Project Sketch; and sample Resource Guides for a Resource Person, Resource Organization, and Community Resource.

You may wish to use an overhead projector and transparencies, a flipchart (prepared beforehand), a chalkboard, and Learning Coordination (especially the

Exhibit 3

Levels of Student Involvement With Resources



ORIENTATION

Purpose: To acquaint the student with an organization or with a career/subject area and with a Resource Person so that he broadens his awareness and can reasonably decide whether he wants to explore the organization, area, or personal relationship any further.

Types of Activities: Discussions, guided tours, meeting Resource Persons, asking questions, reading background material, viewing related films, and so forth.

Estimated Time Involved: 1-3 half-days, or 1-9 hours.

EXPLORATION

Purpose: To provide the student with sufficient exposure to a career/subject area so that he learns basic concepts and processes used in the field; can evaluate the area in terms of his own interests, values, and abilities; and can reasonably decide whether to seek in-depth experience to acquire specialized knowledge or skills proficiency.

Types of Activities: Accompanying the Resource Person as he goes about his tasks; interviewing people in the organization; learning about horizontal and vertical relationships between persons and functions; selecting a particular problem for research or study; reporting and discussing his findings and impressions; gaining limited hands-on (minds-on) experience in representative tasks or problems; reading supplementary material; viewing films; and pursuing related studies.

Estimated Time Involved: 5-10 additional half-days, or 10-39 hours.

INVESTIGATION

Purpose: To provide the student with sufficient experience in an organization or career/subject area to develop specific knowledge and skills (competences) necessary for personal, vocational, or educational goals.

Types of Activities: All of the preceding activities, plus on-the-site training and more extensive personal involvement in performing tasks and assignments, and intensive study of related materials.

Estimated Time Involved: 20 or more additional half-days, or 40 or more hours.

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section on student records which contains a set of completed student forms). You will also need access to the resource center file and career information materials.

Major Points to Discuss

1. Distinctions between Resource Persons, Resource Organizations, and Community Resources, and how each can be used in planning and carrying out projects.
2. Where and how to find information on resources in the files.
3. The role of the Resource Analyst.
4. What can be learned at resource Orientations (also at Explorations and Investigations, but the emphasis here is on Orientations), and how to prepare for them. How this approach differs from classroom learning and why.
5. The need for students to identify as soon as possible those resources they desire to work with beyond the Orientation level in pursuing their projects.

Recommended Strategy

Begin by reminding students that they will usually start with an interest or a need. They may be concerned with a social issue, be attracted to a career field, or need science credits. Or perhaps an earlier Orientation has aroused their curiosity about computers, for example. Once they have a pretty clear idea of what their interest consists of, then they can decide best how to look for appropriate resources.

1. Give students copies of Resource Guides for an RP and an RO with whom Orientations have been scheduled and which also provide Explorations and Investigations. Also give them copies of Levels of Student Involvement with Resources and discuss the differences between these three learning activity levels. Point out the kinds of information the Resource Guides contain. Note that suggested project activities listed for each level of involvement can be used to develop project goals and indicators when a student cannot think of his own. (They will be learning how to plan projects at a later date.)

2. Distribute copies of a Community Resource Guide and explain how Community Resources differ from Resource Persons and Organizations. To make the most of CRs, students must rely on their powers of observation. They should plan to make notes, take pictures, use a tape recorder, or employ some other method of recalling what they saw, heard, and learned at the CR.

3. Show how project planning packages can be used to identify resources in an interest area.

4. Take students to the resource center files and introduce them to the Resource Analyst, who will explain his job and any procedures students should know about for locating and using resources. Allow students to browse through the resource files.

5. Demonstrate how to use the career information materials. They contain information about careers and should be used before or after resource activities when appropriate. Ask your students to find information in these materials on the occupations of the resources they will soon visit.*

6. Explain that students may recruit their own resources, but if they do, they must get the proper information on file immediately afterward. All student-recruited resources must be recorded and the information given to the Resource Analyst. There are two reasons for this: for insurance reasons the resource must be officially in the files; and the staff must contact the resource to assure that he or she understands the EBCE program and can provide the kinds of experiences and assistance students will expect.

After students have read the Resource Guides and reviewed the career information materials, they are ready to talk about what they might learn at the Orientations. You can pose questions about specific resources with whom Orientations have been scheduled such as:

- What issues, subjects, or careers could you explore there?
- What kinds of questions would you ask? Why?
- What would you do if you saw something that interested you that the resource did not mention?
- What would you do if you didn't understand what the resource was saying?
- What would you say if you decided you wanted to continue in Exploration or Investigation activities and do a project with the resource?

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* The staff may wish to have the Resource Analyst lead these portions of the workshop.

Role plays and simulations can be helpful in teaching students how to arrange and prepare for Orientations at resource sites. They may want to simulate a phone call, or take turns posing as a resource while other students ask questions. If not, these activities are likely to take place in the Part II session. Below are some points that need to be emphasized.

- Students should read the Resource Guide before calling a resource for an appointment or attending an Orientation.
- When calling a resource for an Orientation appointment, the student should:
  - △ identify himself and the school;
  - △ explain his interest in the resource (if his interest is vague, the student should candidly explain that too so the resource knows what to expect);
  - △ ask what will happen in the Orientation;
  - △ ask when the resource is available for an appointment (if the student plans to bring other students along, he should ask the resource's permission beforehand); and
  - △ repeat the date, time, and place of the meeting and then write it down.
- If they are unable to keep the appointment, or if they will be late, students should always call a resource before the scheduled appointment. If a student cannot reach the resource, he should call his LC and ask him to contact the resource.
- Every student should complete a Project Sketch before attending Orientations. If not sure of the questions he is interested in pursuing, he should talk to his Learning Coordinator or another student about the resource and look at some of the sample Project Sketches in the project planning packages. Students should ask questions about problems, values, lifestyles, activities, possible projects, and what they can actually do and learn at the resource site.
- Students ought to be prepared to answer questions the resource may have about the school and the student's interests, goals, and program at EBCE. Resources are eager to help students learn and they expect students to take an interest and ask questions. Students should also realize that resources are human and may not live up to their expectations. (Returning students can share with new ones some of their experiences at resource sites by explaining how they reacted in various situations.)

- The student is responsible for informing a resource whether he wants to return for further Orientation or Exploration activities either before leaving the resource site or later by telephone. The resource should always be so informed and thanked for the time he or she spent with the student.
- Students must try as soon as possible to identify resources with whom they would like to work on projects. Orientations which do not lead to a project will not receive credit. (Credit is earned only through completed projects or supplementary learning activities.)

Planning Workshop

In EBCE students are responsible for planning much of their educational program and most of their activities. They have to plan their programs for the term, their projects, and their daily and weekly activities. This workshop will introduce them to the nature of the planning process, help them identify the steps involved, and have them begin assessing their own planning ability through the learning activities described below. Discussions and activities similar to those described below should be used in advisory group meetings throughout the year to reinforce students' learning and enable them to further develop their skills.

You should:

1. Help students see why planning is important.
2. Teach students the key steps in the planning process.
3. Help them understand what constitutes a good plan.

Materials Needed

You will need a chalkboard or a flipchart.

Major Points to Discuss

1. Why the ability to plan is essential in EBCE.
2. How to plan a task or solve a problem.
3. Characteristics of good planning.

Recommended Strategy

Begin the workshop by explaining its purpose: if students are to play the central role in deciding what they want to learn and how, then they need to know how to plan. Describe some ways planning skills are applied in EBCE (planning projects, visits to resources, and managing one's own time). Along with knowing how to pose questions, acquire and use information, solve problems, make decisions, and communicate effectively, planning is one of the EBCE core skills. This introduction should be very brief. The points can be reinforced at the end of the workshop or in later workshops, if necessary.

After introducing the topic, get your students to define planning in terms of their own personal experience. Ask them to think over their activities for the past one or two weeks, and to write down three major tasks they had to plan or problems they had to solve. Have them identify which of the three was most important to them or required the most planning. Then ask, "How did you go about planning that task or solving that problem?" Ask them to outline their planning process on paper.

If some students have difficulty applying themselves to these activities, the following tactics can be used:

1. Call on some of the students to share their tasks and tell the group how they planned them. Ask such questions as, "What steps did you use? What kinds of things did you have to think about? Did you have any goals? What information did you need? What obstacles made it difficult for you to complete your task? Were you able to anticipate these obstacles when you planned?"

2. Ask for a volunteer and use that student's task for a group exercise. Ask the volunteer to reconstruct how he planned the task. Ask the group how they would plan it. List steps on the chalkboard. (Make several lists if there are differing suggestions for how the task was or should be planned.)

Lead a discussion of the exercise with such questions as: Did everyone plan the same way? What are the good points of each of the planning processes outlined? Is there anyone who didn't use some kind of planning process. (Is this possible?) What do you think it means if you had difficulty outlining your planning steps? Is flying by the seat of your pants a planning process? Are there any steps that nearly everyone mentioned? Which ones? Why? How many of you stated goals? You mean you didn't care what was accomplished? Should you plan all things with the same care? What are some things you might not need to plan thoroughly? Why? What are some things you think should be very carefully planned? Why?

The exercise and discussion should help students recognize that (a) they already use some kind of planning process, even if they haven't given it much thought; (b) not all tasks have the same importance or merit the same thoroughness of planning; and (c) careful planning can help a person do a better job, increase his chances of success, and help him evaluate his accomplishments more objectively.

If time allows, you can use the next activity to help students learn the characteristics of good planning. If not, you can use it at the beginning of the Project Planning Workshop.

3. Present your students with a task to plan, such as a group visit to the local police station to find out exactly what happens to a person after he's arrested. Have them define as specifically as possible what they want to learn through the visit, how they will know they have learned it, what they should know before they go, what arrangements need to be made (transportation, appointment, sign-up list) and who should make them, what information they need in order to make the arrangements (bus schedules, cost of chartering a bus, or other means of transportation), which arrangements should be done first, what might happen to botch their plans, and so forth. Record everyone's ideas and suggestions on the board. Then ask your students to reorganize their responses under one of the planning elements which follow:

    - What are your goals?
    - How will you know if you have accomplished your goals? (What are your goal indicators?)
    - What do you need to do? (What tasks need to be accomplished?)
    - What information do you need?
    - What resources are needed (including time, money, written materials, people, etc.)?
    - What alternative strategies or courses of action have been examined? What are the pros and cons of each (for example, dividing into small groups to answer particular questions, or everyone answering his own and later pooling information)?
    - What are your criteria for selecting a course of action (for example, time, money, quality, availability, information provided)?
    - What strategy have you chosen? What are some contingency strategies?
    - What is the tentative schedule, including deadlines and individual responsibilities?

Career Exploration Workshop

The purpose of this workshop is to help students understand what career exploration means in EBCE by getting them to think about what careers are, how people choose them, what constitutes job satisfaction, and how you weigh career options against your own values, abilities, and interests.

You should help the students to:

1. Decide what differentiates one job from another.
2. Identify sources of information about jobs and careers.
3. Recognize that different people value different things in a job.
4. See that understanding the relationship between one's values, lifestyle, abilities, and career preferences is essential to making sensible choices.

Materials Needed

1. Chalkboard or other means of displaying information.
2. Examples of sources of career information, such as the Dictionary of Occupational Titles, the Occupational Outlook Handbook, and perhaps samples of flyers or brochures put out by the Chamber of Commerce, employers, or other organizations.

Major Points to Discuss

The following key points should be illustrated.

1. Not all people have the same reasons for career choices. Values differ.
2. Most jobs have disadvantages as well as advantages.
3. Career choices can have important effects on one's sense of identity and lifestyle.
4. How does a person find out what satisfaction in a career means for him?

Recommended Strategy

This workshop will consist mainly of group discussions focused on key questions. Wherever possible, get students to apply any observations they've made during their initial visits to resources.

1. First, get them thinking about what careers mean to them now, so they can begin to raise questions in their own minds about what they know, what they don't know, and the kinds of things they will want to find out in EBCE. Some leading questions might be: Is a career the same thing as a job? Is there a difference between medicine and being a hospital attendant? Isn't being a hospital attendant helping to heal the sick? Can you have several different jobs as part of a single career? How do you define "career"? Does it matter?

   If you have time, ask the students to think of jobs having similar characteristics, and develop several lists on the chalkboard under such headings as: jobs having similar pay (do they require similar amounts of training?); jobs having similar duties (do these jobs require similar abilities?); jobs in the same "field" -- social science, medicine, physics, etc.; jobs in which the worker deals primarily with people, things, or ideas; those in which one usually works outdoors, and those in which work is mostly indoors. The purpose is to illustrate that there are many ways to classify or group jobs, depending on the qualities and characteristics one considers (such as amount and kind of training required, duties, amount of pay, and whether or not one works with people).

2. Ask students to speculate how people they know chose their jobs, and use their answers to explore the question of values and motivation in career choice. Get them to see that choices are not always made soundly (e.g., a person may become a lawyer in order to win his father's approval, or a teacher just so he can have summers off) and that unless a person's motives are reasonably well thought out, the prospects of satisfaction are poor.

3. Next, pose the questions, "What does job satisfaction consist of?" Ask students to each think of one job they would like to do for a year, disregarding limitations such as required education and training. Then ask them to list the reasons for their choices, and spend some time discussing them. Help them identify as many different kinds as you can: money, desire to be outdoors, status, love of machines, desire to help others, the need to be independent, and so on. Relate these and other values to a variety of careers: executive secretary, spot-welder, press agent, bookbinder, pharmacist, piano tuner. What kinds of values are these jobs likely or not likely to satisfy and why? How can you find out?

4. Ask students if any of them have or have had jobs. If so, discuss what they liked and disliked about their jobs. Ask them to be specific.

5. Lead into a discussion of what one needs to know to evaluate the personal desirability of a job. Ask the students what they think, listing their contributions on a chalkboard. They will probably be able to draw on ideas which emerged in discussion during the previous activities. For example, what are some of the reasons listed for liking and disliking jobs? Are there things about yourself you should know before evaluating the suitability of a job? What? Interests? Abilities? Values?

   Stress the importance of making comparisons between one's own abilities and the abilities and training required to do the job, and of comparing one's values in a job, and one's preferred lifestyle, with the likelihood that the job will offer an opportunity to realize those values and preferred lifestyle.

6. Discuss sources of information, such as Resource Persons and Resource Organizations, the Dictionary of Occupational Titles, the Occupational Outlook Handbook, and printed pamphlets and circulars. (You may wish to omit the Dictionary of Occupational Titles, since it is complicated and difficult to use. The Occupational Outlook Handbook is more readable and generally contains more current information.) Illustrate the kinds of information obtainable from each of these sources, and discuss their relative strengths and limitations:

   - Resources offer firsthand information. You can see the site and the working conditions, talk to the person doing the job and some of the people he works with, and observe tasks being performed.

   - The limitation with RPs and ROs is that not all work sites are the same. For example, not all accountants have the same working conditions.

   - In addition to talking with several RPs, sources like the Dictionary of Occupational Titles and the Occupational Outlook Handbook can help broaden your knowledge of a career field. They usually give a range of employment conditions, such as salary, training required, duties, hours of work, and so on. They also provide useful information about the probable future demand for people in the job. In short, such sources are a good way to balance and broaden one's impressions from visiting a single work site.

   - Tools for recording information about careers and jobs include the Career Orientation Guide, the Job Information Test, writing an essay in which you state and support your personal evaluation of the career, or a narrated photographic essay.

7. Summarize some of the important things to consider when evaluating the desirability of a job, including:

   - the roles and functions of the employee and the relation of the job to other jobs;

- how one qualifies for entry and advancement (education, experience, aptitudes) and possible routes of entry and advancement in the career;
- the working conditions associated with the job, including physical environment and social milieu, hours of work, how the job affects the worker's lifestyle, and other conditions;
- the monetary, psychological, and other rewards which the workers receive from the job;
- the current and projected demands for workers in the field and opportunities for advancement and lateral movement within the career; and
- a personal evaluation of the occupation in relation to one's own interests, values, goals, and abilities, including positive and negative assessments and whether the assessment is likely to change.

The goals and recommended activities of this workshop constitute more than you will be able to accomplish in a single advisory group meeting. It would be best to consider the initial Career Exploration Workshop as the beginning of a continuing effort.

Project Planning Workshop

When students begin projects, they usually have only vague notions of what they want to learn. However, the ability to state specific learning outcomes is essential to project planning. Therefore, this workshop is designed to help students learn, through a question-and-answer process, how to move from a broad project topic to some specific goal statements. The activities described require students to apply the knowledge and skills they acquired in the first planning workshop. To understand what will take place, students must have prepared for, if not already had, a resource Orientation. Throughout the year in advisory group meetings, you will have to reinforce these learning activities with similar ones.

You should:

1. Involve students in an inquiry process of asking questions, getting information about them, refining those questions and asking new ones, getting more information, and so forth.
2. Discuss standards and criteria for projects.
3. Demonstrate how packages can help students when planning projects.
4. Teach students how to write project goals and indicators.

Materials Needed

You will need copies of the packages and a chalkboard. You may wish to use blank copies of the Student Project Plan.

Major Points to Discuss

1. What a project is and how to begin one.
2. Selecting a manageable project topic, scoping down if necessary.
3. Criteria for an acceptable project.
4. What goals and indicators are and how to write them.
5. The mini-project: what it is, the criteria for it, and when it is due.

Recommended Strategy

Select a topic identified as a possible subject for investigation by one or more students. It can be a social or political issue, a broad subject, a career to explore, and so on; something of interest to most of the participants. It will help if at least one student has had (or planned) a related resource visit. Ask all the students to pretend they want to learn about the chosen topic. The problem for the group to solve is: How do you get from an undefined interest in a broad area to stating exactly what you want to learn? What is the first thing you would do?

If, for example, your students have selected news reporting as their topic, ask them what they want to know about the subject and list their questions on the board. You can probe by asking what skills journalists need, what they would like to learn about the career, what issues (newspaper management, editorial policy) interest them, what subjects journalists might need to know about, and so forth. Spend at least five minutes eliciting questions. Encourage people to expand on each other's questions.

The next step is to group questions which are concerned with similar areas. Examples of areas might be careers in journalism, the process of reporting the news, and issues related to newspaper management. Then ask the participants to designate especially interesting or significant questions as well as those which are of secondary importance. Ask the group to decide what should be done next. For instance, do they already have answers to some items? How can they answer others? Discuss ways to get more information. Illustrate that getting information usually leads to new questions. Call on students who have visited related resources. Ask what questions they had before going, what they found out, and what questions they have now. Sometimes this questioning process leads to a redefinition of the topic. For example, an interest in investigative reporting may lead to a study of the conflict between a journalist's need for privileged information and the state's right to subpoena evidence.

The student, when actually planning a project, should eventually settle on a limited set of questions to investigate in depth. It should then be possible to state some goals. For purposes of this exercise, designate a limited set of the questions listed on the board. Ask participants to state a few goals. Help them differentiate between poorly- and well-stated goals.

Now the question is: How will you know when you have accomplished a goal? How can you show others you have? Ask the group to answer this for one of the goals that have just been stated. Help your students understand what an indicator is, as well as differentiate between an adequate and an inadequate set of indicators. At this point you can discuss the kinds of skills and other learning that should be included in a project and how the package goals set such standards.

Before continuing, explain what a mini-project is and how it compares with an ordinary project. Now your students can try planning individual projects -- either their mini-project, if they know what they want to do, or any project related to a resource they will be visiting or have visited. (Unless the student plans a mini-project or is a returning student, this will only be an exercise.) Students can plan these projects while you circulate among the workshop participants providing individual help. If several students have similar problems, they can be discussed and solved by the group. Students should be reminded to check their project plans to make sure they meet minimum package goals; include an Exploration or Investigation with a Resource Person or Organization; include goals and indicators; state evaluators; and include at least one product. (Mini-projects do not have to meet package goal requirements and may include Orientations rather than an Exploration. See page 15 of this handbook.)

Learning Resources Workshop II

The purpose of this workshop is to follow up the students' early experiences with resources and reinforce the lessons of the first learning resources workshop. It is designed to help students identify and deal with problems they experience in their first contacts with resources, and to provide skills that will allow them to cope with a variety of resource situations in the future.

You should:

1. Help students evaluate their recently completed resource Orientations by having them concentrate on what was learned and problems encountered.
2. Help them develop skills they may have had trouble with, such as making initial telephone contact, completing Project Sketches, asking questions during the Orientation, and dealing with interpersonal difficulties.
3. Help them prepare for their second resource Orientation.

Major Points to Discuss

1. What students did and learned at resource Orientations they attended.
2. How to better prepare for future Orientations.
3. Problems students sometimes encounter on resource visits and ways to solve them.

Recommended Strategy

All students should have attended their first Orientation by this time. Most will be eager to discuss their experiences. Many of the same questions that were raised during the first learning resources workshop can be repeated, but this time students will have a different perspective toward them. Below are some examples of discussion questions about students' resource visits:

- What did you hope to learn (about particular issues, subjects, careers, possible future activities, or potential projects)?
- What did you learn?

- Is there anything you think you should have learned but did not?
- Were there things you wanted to discuss but the resource did not or could not?
- What kinds of questions did you ask? Can you think of some questions now that you think you should have asked?
- Were all of your questions on the Project Sketch answered, or can you answer them now?
- Do you feel now that you were well prepared for the Orientation?
- Did you feel well prepared before you went? Would you prepare the same way for future Orientations? Why?
- How can you better prepare yourself for future Orientations?

Have students compile a list of difficulties they experienced with these first Orientations and discuss them.

Once students have clearly identified and come to terms with the problems they encountered, spend some time helping them develop skills to overcome similar problems in the future. Areas students often have difficulties with include making initial contact with resources on the telephone; planning Orientations on the Project Sketch and asking significant questions; carrying on conversations with resources when on the site; and relating what they've learned to their current interests, values, and goals. Ask returning students to participate in role plays with you so that you can demonstrate mistakes students often make and how to avoid them. For example, you take the role of an RP and ask a returning student to pretend he is calling you on the phone to arrange an Orientation. Tell the group beforehand that the student will be making mistakes so they will look for them. Have the student make several mistakes such as not announcing who he is and why he is calling right away, not explaining what he is interested in learning from the RP, not verifying how the RP could help him, and not repeating the date and time of the Orientation or writing it down. If no new students see anything wrong with the role play, call on returning students. Then discuss the potential consequences of these mistakes and how to avoid them.

If some students had trouble knowing what questions to ask the RPs they visited, you can use a role play to demonstrate how they can do this too. Ask for two volunteers to play the student and the RP. The student who assumes the RP role should pretend he is involved in an occupation he knows something about -- perhaps something his father does, or a summer job he once held. Ask them to simulate a brief Orientation and ask the rest of the students to observe and be prepared to critique their performance afterward. Use as many such techniques as necessary to demonstrate how to arrange individual Orientations.

The workshop should culminate with the students preparing for their second resource Orientation.

Program Planning Workshop

One well-planned session, especially if you have returning students who can coach new students, should be adequate for introducing the elements of long- and short-term planning to your students.* They will not be able to complete their own long-term planning during this workshop (they will need individual conferences with you to do that), but they can begin developing the needed skills. (Long-term planning ought to be completed by the end of the fourth week of school, or sooner if the staff so decides.) This workshop will also help students examine alternatives for accomplishing their short-term goals (focusing on a single term's program), how to choose among those alternatives, and how to schedule their activities.

You should:

1. Explain district graduation and EBCE program requirements (if they differ).
2. Discuss with students the purposes and methods of program planning.
3. Discuss with students minimum requirements of the program and what some "average" students' programs include.
4. Discuss the various assessment instruments available for students' use (vocational interest, aptitude, and ability tests).
5. Discuss alternative learning activities (including the supplementary curriculum).
6. Guide students in scheduling and managing their time.
7. Show them the forms for program planning and help them learn to use them.

Materials Needed

Completed sample copies of the following forms should be available for each student: Long Term Plan; External Course Description; Physical Education Plan;

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* You may wish to ask the Skills Specialist to lead a portion of this workshop or at least be available to describe the supplementary curriculum and answer questions.

Overview of Student Activities, and Request for Supplementary Assistance. Students should have copies of the program goals and of the Long Term Plan listing his or her individual course and credit needs.

Blank copies of the following forms will be needed:

- Weekly Activity Schedule
- Student Activity Report
- Physical Education Plan
- External Course Description
- Request for Supplementary Assistance

A chalkboard will also be useful. Refer to Learning Coordination for descriptions of the purposes and procedures of program planning. (The section on student records contains a complete set of properly filled out student forms.)

Major Points to Discuss

1. Reasons for long-term planning.
2. Graduation requirements (course, credit, and any other requirements such as career development skills or competencies for daily living).
3. Program goals (what it is hoped students will learn as a cumulative result of their experiences in the program).
4. How students identify their academic needs and interests and go about satisfying them.
5. Methods for combining needs and interests in an individualized program.
6. How to integrate resource and supplementary learning activities in a project.
7. How to develop a project that meets a student's interests as well as his needs.
8. What non-project activities are acceptable as supplementary learning activities; how to request, document, and submit them for credit.
9. Criteria for an acceptable student program.
10. Credit assignment.

Recommended Strategy

Students should have visited at least one resource and given some thought to what they want to do during the term by the time this workshop is conducted. They should now be ready to discuss how to weld their current interests and needs together in a plan directed toward some longer-range goals.

Begin this session with a discussion of the reasons for long-term planning: it helps both student and Learning Coordinator see where the student is and where he wants to be; it is a method of individualizing students' learning programs; and it enables staff to determine whether students are progressing toward graduation and receiving a comprehensive education. Students should be encouraged to voice their own ideas in seeking other reasons for this planning process. One way of making this a meaningful discussion is to ask students to compare their previous experiences in a regular curriculum to program planning they are going through now in EBCE.

Explain graduation requirements and EBCE program goals -- that is, what it is hoped they will learn as a result of their experiences in the program. Graduation requirements and the program goals are what the general educational community and the EBCE staff believe are worth knowing. Ask the group to compare these goals to things they believe are worth knowing.

These discussions about the purposes of program planning and what is worth knowing can lead not only into a discussion of the values of education, but also into an explanation of how to plan one's program using the Long Term Plan. Create an imaginary "average" student. Ask your students to describe this student and to suggest post-high school plans, careers of interest, and subjects of interest for this "average" student, then lead the students through the long-term planning process. While doing this, you ought to emphasize that:

1. a plan takes into account student's needs, interests, and post-high school plans, and
2. it is a working tool which gives students something to aim at, but which is also flexible, changing as interests, needs, and goals themselves change.

When the group has completed this long-term planning exercise, you can distribute each student's own Long Term Plan listing his course and credit requirements. At this point, you probably should explain the criteria for a minimally acceptable program. (This will vary from district to district, depending on the type of credit and term system in effect, whether students can enroll in regular high school classes and if so how many, what grade levels are enrolled in the program, the program goals, graduation requirements, and so forth.)

Begin a discussion in which students identify some interest they might like to explore in EBCE. (Ask about their "needs" if the students are ready to deal with the topic at this time.) Explain the areas where their interests and needs interact in planning long-term programs, such as the requirement for college preparatory subjects if they are considering a four-year college after high school. Show how their interests can be worked into projects that satisfy course requirements. For example:

- One FWS student started with an interest in criminal justice. By developing her project to meet the package goals for the Politics Section of the Social Science Package, she was able to pursue this interest and complete the equivalent of the high school American government requirement and part of the EBCE career exploration requirement.

If possible, use examples from returning students to further illustrate how needs and interests can be satisfied in an integrated program.

Have students complete each section of the Long Term Plan based on what they know about themselves at this point. However, it must be remembered that this is an exercise. Students will work out actual plans in individual conferences with you after orientation has given them the opportunity to explore some of their interests and discover some of their needs.

Discuss the methods for achieving goals in EBCE: projects, advisory groups, and supplementary learning activities. Give them copies of the Physical Education Plan, the External Course Description, and the Request for Supplementary Assistance (or similar program planning forms). Explain these forms to them.

Before they complete the section of the Long Term Plan that asks them to approximate credit they plan to earn, explain the credit system. (In Far West School's system, 10 Far West EBCE credits equalled 1 Carnegie unit. The average project was worth 5 Far West credits, but projects could be worth as few as 2 or as many as 10. The credit system will vary from district to district and be partly dependent on whether the school is on a quarter, semester, or quinmester system.)

Describe the various means for monitoring a student's program, such as weekly individual conferences with the student, phone calls and visits to resources with whom the student is working, Student Activity Reports, evaluation of student products as they complete projects, advisory group meetings, package meetings, and reports from the Skills Specialist and tutors.

Point out that all students should be considering their needs and interests during the Orientation period so that they will be able to formulate their goals for the term toward the end of orientation. You are now ready to introduce your students to the process of short-term planning.

Use the example of Jim Olsen (see the appendix on student records in Learning Coordination) to lead your group in planning a term's activities. Start with Jim's Long Term Plan and list on the blackboard what he plans to accomplish the first term. Then discuss the various learning activities available for achieving each of his goals (for example, he can do a project, take a tutorial, participate in a workshop, or do a combination of all three to meet his goal of earning 5 credits in English). List the alternatives under each goal and when and why he might choose each. If, for example, Jim needs to improve his writing skills, he could work with a tutor individually or in a small group, he could sign up for the Communications Workshop, or he could develop a writing project of some kind and work with a Resource Person. He could also do all three: work with the tutor on his basics -- spelling, grammar, punctuation; work with an RP on style and to learn a specialized form of writing such as journalism; and share ideas and problems with other members of the workshop.

After you have discussed the alternatives with your group, use the Jim Olsen example to explain how to arrange a schedule. Point out that students first have to identify regularly-scheduled activities (advisory groups, tutorials, workshops, etc.) and then arrange their resource visits, research, and reading around them. The criteria for an acceptable program should be reviewed and explained since these will affect the number of hours students will be expected to spend out in the community and the number of tutorials and classes they may take in any one term.

Your students won't be able to digest everything that happened in this workshop right away. Give them some time to try doing a few of the things discussed in this session, confer with them individually, and then review in subsequent advisory group meetings.

Appendices

Appendix 1

Far West School Orientation Goals and Objectives

The following goals and objectives will be accomplished during the orientation:

1. Entry assessment of students' needs and interests will be completed.

    1.1 All students will have completed entry instruments.

    1.2 Learning Coordinators will have assessment results, school transcripts, and other information that will enable them to help students with long-term program planning, completing the Long Term Plan, and selecting learning activities.

2. Students will be informed about EBCE organizational structure and administrative procedures.

    2.1 All students will have been introduced to the members of the staff and their respective roles.

    2.2 Students will have been assigned to Learning Coordinators and advisory groups will have been formed.

    2.3 All students will have been informed of such administrative procedures as bus and transportation arrangements, student accountability, rules, and sanctions. All students will have been given an information packet that further explains these and other procedures.

3. Students will acquire information regarding EBCE learning resources and EBCE curriculum structure, and will begin developing such EBCE skills as planning programs and projects and making the best use of resources. A student will be able to do the following:

    3.1 Identify:

        a. the number and type of units he needs for graduation,

        b. the number and type of additional units he needs in preparation for college or special training he may enter following high school,

        c. EBCE requirements he needs to complete (if any),

d. at least three career areas he wants to explore, and

e. three subjects or issues he wants to explore. (Optional)

3.2 Identify at least three goals he hopes to achieve in the coming term.

3.3 Identify one or more alternate means of achieving each of his identified long-term goals.

3.4 Using the resource files and project planning packages, locate possible resources for each of the career areas he wants to explore.

3.5 Using the resource files and project planning packages, locate possible resources for each of the problems or issues he wants to explore. (Optional)

3.6 Summarize the following information about one career of interest after attending resource Orientations and using career information available at the resource center:

a. how one qualifies for entry and advancement;

b. possible routes of entry and advancement;

c. working conditions associated with the job such as physical environment, social milieu, hours of work, and how the job affects the worker's lifestyle;

d. monetary, psychological and other rewards derived from the job;

e. current and projected demands for advancement and lateral movement within the career; and

f. an evaluation of the suitability of this career for him: what he likes and dislikes about the career and why.

3.7 Given examples of Student Project Plans, correctly identify those which are acceptable according to the following criteria:

a. significant questions are asked;

b. at least one Exploration with a Resource Person or Resource Organization is included;

c. at least two goals each related to life skills, career development skills, and basic skills activities are stated;

d. goals, indicators, and methods of evaluation are adequately stated to enable a student and Learning Coordinator to know when the goals have been achieved; and

e. at least one product is specified.

3.8 Plan and complete a mini-project that will require 15 to 30 hours of work. The plan should include:

a. a statement of purpose indicating the reason he wants to complete this project;

b. at least one goal each related to basic skills activity, life skills, and career development skills;

c. a list of resources that will be used to complete this project;

d. a plan of action that describes how goals are to be completed and at least one product that will indicate completion of goals;

e. indicators and the person(s) who will evaluate for completion of goals; and

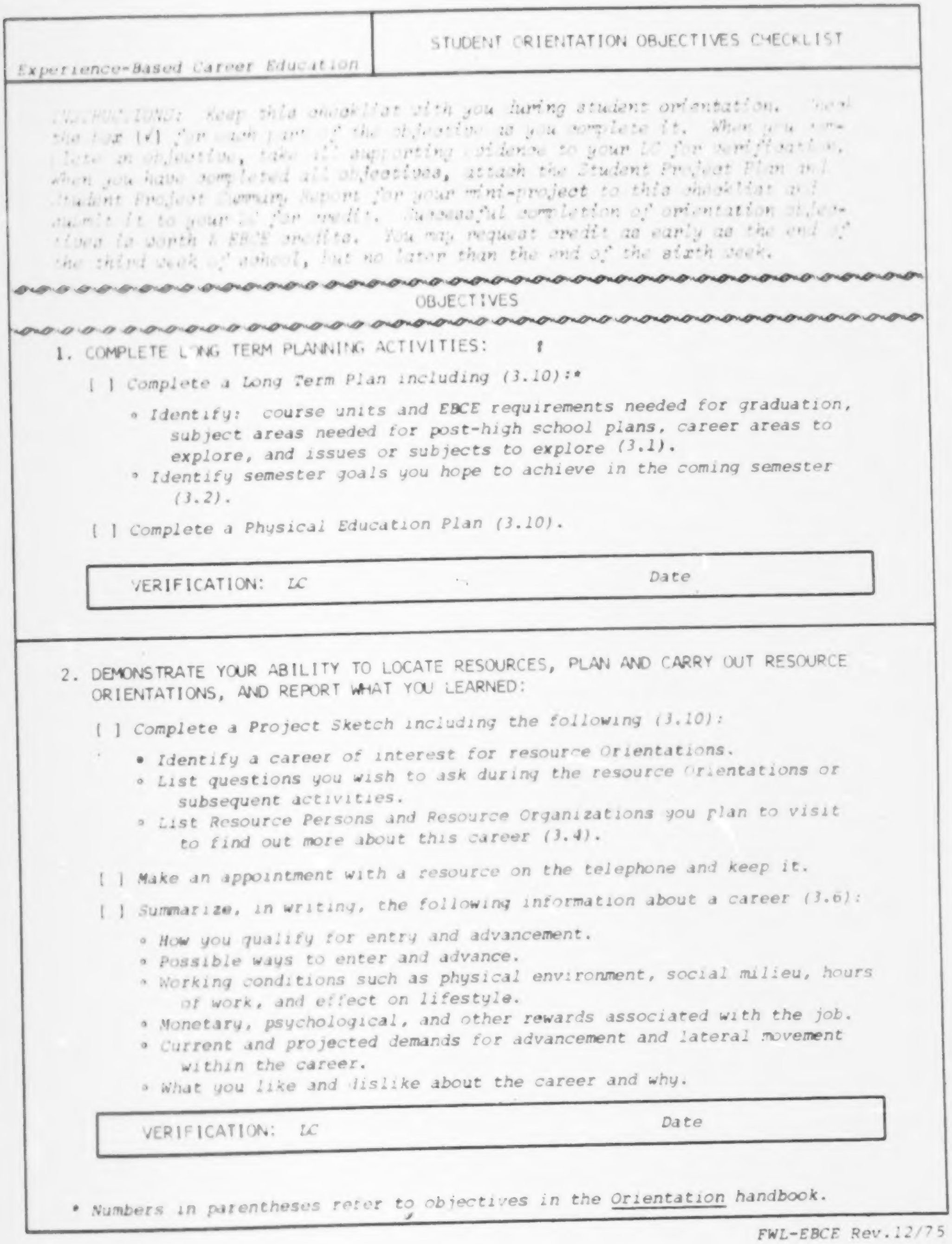
f. a due date for mini-project completion.

3.9 Submit a Weekly Activity Schedule for his first week of regular program activity that includes a total of between 25 and 30 hours of activity with at least three full mornings or afternoons which will be spent in community and employer settings.

3.10 Complete all appropriate forms during the orientation for the activities in which he participates and be able to identify when it is appropriate to use these forms: Student Project Plan, Long Term Plan, Project Sketch, Physical Education Plan, Weekly Activity Schedule, Student Activity Report, Career Orientation Guide, and Student Project Summary Report.

Appendix 2

Student Orientation Objectives Checklist



Experience-Based Career Education

STUDENT ORIENTATION OBJECTIVES CHECKLIST

INSTRUCTIONS: Keep this checklist with you during student orientation. Check the box [✓] for each part of the objective as you complete it. When you complete an objective, take all supporting evidence to your LC for verification. When you have completed all objectives, attach the Student Project Plan and Student Project Summary Report for your mini-project to this checklist and submit it to your LC for credit. Successful completion of orientation objectives is worth 1 EBCE credits. You may request credit as early as the end of the third week of school, but no later than the end of the sixth week.

OBJECTIVES

1. COMPLETE LONG TERM PLANNING ACTIVITIES:

☐ *Complete a Long Term Plan including (3.10):**

- *Identify: course units and EBCE requirements needed for graduation, subject areas needed for post-high school plans, career areas to explore, and issues or subjects to explore (3.1).*
- *Identify semester goals you hope to achieve in the coming semester (3.2).*

☐ *Complete a Physical Education Plan (3.10).*

VERIFICATION: *LC* *Date*

2. DEMONSTRATE YOUR ABILITY TO LOCATE RESOURCES, PLAN AND CARRY OUT RESOURCE ORIENTATIONS, AND REPORT WHAT YOU LEARNED:

☐ *Complete a Project Sketch including the following (3.10):*

- *Identify a career of interest for resource Orientations.*
- *List questions you wish to ask during the resource Orientations or subsequent activities.*
- *List Resource Persons and Resource Organizations you plan to visit to find out more about this career (3.4).*

☐ *Make an appointment with a resource on the telephone and keep it.*

☐ *Summarize, in writing, the following information about a career (3.6):*

- *How you qualify for entry and advancement.*
- *Possible ways to enter and advance.*
- *Working conditions such as physical environment, social milieu, hours of work, and effect on lifestyle.*
- *Monetary, psychological, and other rewards associated with the job.*
- *Current and projected demands for advancement and lateral movement within the career.*
- *What you like and dislike about the career and why.*

VERIFICATION: *LC* *Date*

** Numbers in parentheses refer to objectives in the Orientation handbook.*

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STUDENT ORIENTATION OBJECTIVES CHECKLIST

Page 2 of 2

3. DEMONSTRATE YOUR ABILITY TO PLAN AND COMPLETE PROJECTS:

☐ *Complete a Student Project Plan for a mini-project on which you accomplish the following (3.8, 3.10):*

- ◦ *State a theme for the project.*
- ◦ *State at least one basic skills activity.*
- ◦ *State at least one goal each related to career development and life skills.*
- ◦ *List the things you will do to complete the project including at least one product. (This could be an essay or a Career Orientation Guide you completed for Objective 2.)*
- ◦ *Indicate who will evaluate your project.*
- ◦ *State a due date for the project.*

☐ *Complete the mini-project by the stated due date and fill out a Student Project Summary Report (3.8, 3.10).*

VERIFICATION: *LC* *Date*

4. DEMONSTRATE YOUR WILLINGNESS TO PARTICIPATE IN THE FWS PROGRAM:

☐ *Attend all advisory group workshops during orientation.*

☐ *Complete all initial assessment tests and forms.*

☐ *Properly complete a Weekly Activity Schedule (3.10).*

☐ *Properly complete a Student Activity Report (3.10).*

VERIFICATION: *LC* *Date*

DATE SUBMITTED FOR CREDIT ____________________

CREDIT APPROVAL: *LC* ____________________ *Date* ____________

EBCE Credits _______ *Subject* ____________________

QUALITY ASSESSMENT: ☐ *Outstanding* ☐ *Very good* ☐ *Acceptable* ☐ *Needs work*

REMARKS: ____

____

____

____

____

____

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Appendix 3

Example of an Orientation Schedule

DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	BY END OF WEEK
Orientation meeting: • Staff introductions • Introduction to program • Overview of orientation • Announcement of advisory groups Advisory groups: • Getting Acquainted Workshop Entry assessment tests	Advisory groups: • Learning Resources Workshop I Students begin making resource orientation appointments Students write 250-word essay LCs work with individuals and small groups	Resource open house Student-scheduled visits to resources Advisory groups: • Planning Workshop LCs work with individuals and small groups	Prescheduled group visits to resources Student-scheduled visits to resources Advisory groups: • Career Exploration Workshop LCs work with individuals and small groups	Prescheduled group visits to-resources Student-scheduled visits to resources Advisory groups: • Project Planning Workshop Students begin planning mini-projects LCs work with individuals and small groups	Workshops completed: • Getting Acquainted • Learning Resources I • Planning • Career Exploration • Project Planning Students have completed at least one Project Sketch. Most students have visited at least one resource. Entry assessment of students' reading and math skills has been completed.
DAY 6	DAY 7	DAY 8	DAY 9	DAY 10	BY END OF WEEK
Student-scheduled visits to resources Advisory groups: • Learning Resources Workshop II LCs work with individuals and small groups	Student-scheduled visits to resources Advisory groups: • Program Planning Workshop LCs work with individuals and small groups EVENING Parent open house (optional)	Student-scheduled visits to resources Advisory groups: • Workshops *(open)* LCs work with individuals and small groups	Prescheduled group visits to resources Student-scheduled visits to resources Advisory groups: • Workshops *(open)* LCs work with individuals and small groups EVENING Resource open house	Prescheduled group visits to resources Student-scheduled visits to resources Advisory groups: • Workshops *(open)* LCs work with individuals and small groups	Workshops completed: • Program Planning • Learning Resources II Students have visited at least one resource. Students have begun long-term planning.* Assessment of students' writing skills has been completed.
DAY 11	DAY 12	DAY 13	DAY 14	DAY 15	BY END OF WEEK
Advisory groups Life Science Project Seminar Students work independently: • Resource site visits • Mini-project • Consult with Skills Specialist Individual student/LC conferences for: • Program planning	Commerce Project Seminar Students work independently: • Resource site visits • Mini-project • Consult with Skills Specialist Individual student/LC conferences for: • Program planning	Advisory groups Communications and Media Project Seminar Students work independently: • Resource site visits • Mini-project • Consult with Skills Specialist Individual student/LC conferences for: • Program planning	Social Science Project Seminar Students work independently: • Resource site visits • Mini-project • Consult with Skills Specialist Individual student/LC conferences for: • Program planning	Advisory groups Physical Science Project Seminar Mini-project plans due Students work independently: • Resource site visits • Mini-project • Consult with Skills Specialist Individual student/LC conferences for: • Program planning	Students have completed mini-project plans. Some students have completed long-term planning. Most students have visited 2-3 resources. Students must have made decision to remain in or leave program.

* [illegible] planning [illegible] completed by day [illegible]
[illegible] completed by day [illegible].

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THE FAR WEST MODEL

EBCE

Experience Based Career Education

9. Learning Coordination

Learning Coordination

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January 1976

Experience-Based Career Education Program
FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT
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This handbook was created by the FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT under contract to the National Institute of Education (NIE). The opinions expressed here do not necessarily reflect the opinion of NIE nor endorsement by any other government agency.

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Table of Contents

Page

INTRODUCTION 1

How to Use the Handbook 1
The Role of Learning Coordinator 2

Goals 3
Learning Should Be Experience-Based 4
The Student Must Play a Central Role as Planner and Decision-Maker .. 6
The Primary Emphasis Should Be on Process Skills 8
What Does Facilitating Mean? 9

ENTRY ASSESSMENT 13

District Requirements 13
EBCE Competence Requirements 14

Quantitative, Reading, and Oral Communications Skills 14
Writing Skills 14
Career Awareness and Decision-Making 16

Interests and Goals 17
Learning Style 18

PROGRAM PLANNING 21

Long-Term Planning 22

Career and/or Educational Plans 25
Graduation Requirements 25
EBCE Requirements 27
Careers the Student Wants to Explore 28
Subjects or Issues the Students Wants to Explore 28
Additional Needs to Pursue Plans 28
Setting Program Goals 29

Selecting and Scheduling Activities 30
Planning Supplementary Activities 33

Physical Education 34
External Courses 34
Workshops and Tutorials 35

Page

PROGRAM PLANNING (continued)

Project Planning 38

Start With the Student's Interests 39
Planning Resource Orientations 41
Developing the Project Plan 46

Questions to Be Investigated 47
Title, Theme, and Planned Credits 49
Resources and Time Estimates 50
Goals and Indicators 52
Using Package Goals 56
Deadlines and Evaluators 57
Criteria for an Acceptable Project 58

ADVISORY GROUPS AND PROJECT SEMINARS 61

Introduction 61
Advisory Groups 62
Project Seminars 66
Suggested Reading 69

PROGRESS MONITORING 71

Sources of Information 72
Some General Principles 73
Monitoring Field Experiences and Progress on Projects 74
Monitoring Other Program Activities 80
Monitoring Progress in Terms of Program Goals and Requirements 81

EBCE Competence Requirements 83

Reading 84
Quantitative Skills 84
Oral Communications 85
Writing 85
Career Awareness 86
Career Decision-Making 87

Other Program Goals 89

Inquiry Skills 89
Problem-Solving Skills 90
Decision-Making Skills 91
Interpersonal Skills 91
Career Entrance Skills 92
Self-Development 93

Midterm and End-of-Term Progress Reviews 94
Reporting to Parents 96

Table of Contents
(continued)

Page

CREDIT ASSIGNMENT 97

What Kind of Credit Should Be Awarded? 97
How Much Credit Should Be Awarded? 100

Credit for Projects 101
Credit for Supplementary Learning Activities 104

Assessing the Quality of Student Work 106
Credit Assignment Procedures 109

Projects 109
Supplementary Learning Activities 110
End-of-Semester Procedures 112

BIBLIOGRAPHY 113

APPENDICES

Appendix 1: EBCE Program Goals 115
Appendix 2: Student Records System 121

Attachment 1: Forms Used in the Student Records System 129
Attachment 2: Summary of Forms and Instruments Used in Learning Coordination 133
Attachment 3: Forms 147

List of Exhibits

Page

Exhibit 1: EBCE Competence Requirements 15

Exhibit 2: Criteria for an Acceptable Program 24

Exhibit 3: Levels of Student Involvement With Resources 51

Exhibit 4: Learning Coordinators' Milestones 60

Exhibit 5: Contents of Current Student Records File 123

Exhibit 6: Contents of Permanent Student Records File 125

Introduction

Introduction

Experience-Based Career Education (EBCE) acknowledges the fact that learning is ultimately a do-it-yourself proposition; as Carl Rogers put it, only "self-appropriated, self-discovered learning" is likely to have lasting consequence.* Your role as Learning Coordinator, therefore, is not to "teach" students what they should know, but to help them "appropriate" knowledge for themselves. The purpose of this introduction is to clarify what that means, by viewing your role of facilitator in terms of the program's goals, key features, and underlying assumptions.

The rest of the handbook discusses the Learning Coordinator's primary tasks, such as entry assessment, program planning, and progress monitoring; it explains the procedures and planning aids used to carry them out, notes typical problems, and suggests methods for resolving them.

How to Use the Handbook

The pages which follow assume you already have a general grasp of the Far West EBCE program, that you have studied the Program Overview, and are not encountering terms like "Resource Person," "Orientation," or "project planning packages" for the first time.

Since this handbook focuses on the central task of coordinating student learning, it does not try to duplicate information discussed primarily in other handbooks. So it's essential that you read and use them also -- especially Orientation, Resource Development, Package Development, and Supplementary Curriculum -- in order to fully understand and carry out your role.

You should read through the entire handbook first, to get a clear sense of the whole EBCE learning process -- the major parts and their sequence -- then concentrate on the areas or sections most helpful to you.

---

* Carl Rogers. On Becoming a Person. Boston: Houghton Mifflin Company, 1961, p. 276.

The procedures described below were developed and tested over a three-year period at Far West School (FWS) in Oakland, California. While doubtless improvable, they have been found effective as practical, day-to-day means of coordinating student programs that are individualized, blend academic and career learning, and are based on direct experience in the community. It's important to understand these procedures, and if necessary modify them to meet local needs, before meeting your first group of students.

Obviously, the process can be mastered only so well by reading and thinking about the steps and methods involved. They won't fall completely into place until you actually start using them with students. At that point this handbook becomes a resource you can turn to throughout the year to clarify and sharpen your understanding.

All the forms mentioned in this handbook -- rating scales, project plans, activity schedules, and so forth -- are included in an appendix, roughly in the same sequence they are referred to in the text.* As you come across a reference to one, you should (as soon as your attention span permits) stop and look at it: first, so you'll understand more concretely what's being said and why; second, because these are the primary tools you will be using to guide and support students as they develop their learning programs.

The Role of Learning Coordinator

As a Learning Coordinator (LC) in EBCE, you will be responsible for working with roughly 20 to 30 students, helping them plan worthwhile programs and projects to expand their knowledge of a variety of subjects and careers, and develop essential skills. You will help them learn to set goals, plan their own activities, and use the resources of the entire community. Finally, you will help them analyze and learn from their experiences, and integrate their newly acquired knowledge, skills, and insights into a coherent whole. To do this, you will work extensively with "your" students both in individual conferences, and in advisory group meetings.

---

* Appendix 2 contains copies of program forms, along with a summary description of their use. (Reproducible blank masters of these forms are available from Far West Laboratory.)

In addition, you will be responsible for coordinating one or more of the project planning packages. In this dual role, you will serve as an expert resource in a broad field of study and work to whom students and your fellow EBCE staff can turn for information and ideas in planning projects. In this capacity, you will also be responsible for planning and conducting project seminars in your field of expertise. The role of Package Coordinator is more fully described in Package Development.

Your role as facilitator, helper, and resource is defined in part by some assumptions about life and learning. As the person most responsible for making EBCE work, it's important that you understand and feel in tune with these ideas, because they underlie almost everything this handbook has to say. They begin with some assumptions about what's worth learning, what high school graduates need most to know.

Goals

What will you be helping students learn? The goals of this program (described in the Overview and spelled out in Appendix 1) start with the fundamental question, "How do you help prepare young people for adult life?" In order to function in a world of unprecedented change, to find a decent, satisfying way of earning a living, and to assume a useful and personally meaningful life role, what does a student need to know and be able to do? Put as simply as possible, he* needs to know:

---

* Throughout these volumes we have generally used the masculine pronouns *he*, *him*, and *his* in instances where we obviously mean to refer to both male and female students, staff, or resources in the community. We were unable to find an alternative which was not cumbersome.

- how to learn -- how to think for himself, to ask relevant questions, get answers, and use information to solve problems and make decisions;
- who he is -- a fairly clear understanding of his interests, abilities, values, and goals as a basis for making realistic decisions about what he wants to do with his life;
- what the adult world is really like -- both in terms of career options, requirements, and rewards; and in terms of the major problems and issues he will have to cope with as a functioning member of society; and
- how to use basic skills -- reading, writing, speaking, computing -- to communicate on an adult level and cope effectively with the tasks of daily living.

These are the essentials -- aiming at self-reliance, personal versatility, and the capacity for life-long learning -- you will be helping students work toward. They imply some things about the nature of the learning process.

Learning Should Be Experience-Based

The EBCE concept of "experience" begins with the view that your students should be spending a good part of their time with working adults in various parts of the community. The Program Overview describes the role of Resource Persons and gives useful illustrations of their relationship with students and the diverse kinds of learning students can pursue at their sites. You will want to carefully read Resource Development, which explains how resources are recruited, analyzed for their learning potential, and made available to students. These people in the community are in a very real sense your colleagues, and by volunteering their time, expertise, and work facilities, they add a crucial dimension to the learning process.

In using the community as a classroom, the point is not so much that experience is the best teacher -- some things are best learned vicariously from books -- but that it is a necessary one. As much as possible, student learning should be based on, and tested against, direct experience in a variety of social and economic settings. This "real-life" base works in several ways.

Most students have grown up in almost total isolation from the roles adults play in today's society. They have only vague notions of what the world of work is really like, and extremely limited awareness of what career options are available. (Few can explain specifically what their parents do on a daily basis to earn a living.) What they do know about occupations often consists of stereotyped images derived from television and movies. Only through firsthand exposure to a broad range of careers -- by spending time with people at their work and seeing how they relate to one another, what kinds of problems and issues they have to cope with, how they use their skills, what they consider boring and exciting about their day, and so on -- can students begin to think realistically about how they want to spend their own lives.

Through working with Resource Persons and Organizations, by seeing for themselves how people use basic skills to solve real problems in day-to-day situations, students can become motivated to want to improve their own skills. Similarly, community experiences provide the kind of practical base that can make academic learning less abstract and more exciting. The student can define a problem or issue, then immerse himself in the environment where the problem actually exists, is dealt with, is causing things to happen.

This doesn't mean a student will learn everything he needs to know about writing by working with a journalist, or master the fundamental processes of American politics by working with a public defender and attending city council meetings. These field experiences must be supplemented with traditional kinds of learning. The student interested in journalism will need to consult grammar books, and the student exploring city government must read about political theory. It's a process of integrating traditional or classroom learning with direct experience, using one to reinforce the other. What the student is doing in the community will prompt him to read to find out more about it, to get answers to some questions on his mind. What he reads can clarify what he's experiencing in the community, give him a broader view of it, and raise other questions and issues that might not have occurred to him.

Motivation to learn often develops out of a relationship between people, especially between students and adults. Because of obvious organizational constraints in the schools, teachers must deal with students primarily in terms of groups. Through its pool of volunteer resources, EBCE expands the opportunities for students to develop meaningful and motivating relationships with others, to find adult models with whom they can identify and from whom they can learn.

These relationships, based on active involvement in a variety of real-life situations, go a long way toward helping students find out who they are. Every time a student asks, "Can I see myself doing this for a living?" or has to figure out how to deal with an adult who seems different, or solve a problem he's never encountered, or talks with you about a Resource Person he likes or dislikes, he is also coming to better understand his own values, concerns, abilities, and goals.

The Student Must Play a Central Role as Planner and Decision-Maker

Since learning is likely to be more effective if it grows out of what interests the learner, rather that what interests the teacher, students must play a central role in determining what's worth learning. This does not mean the student is entirely on his own; it means, as Postman and Weingartner tersely put it, "Unless an inquiry is perceived as relevant by the learner, no significant learning will take place. No one will learn anything he doesn't want to know."* But it's not just a question of interest and relevance. Unless the student goes through the process of deciding what questions he wants to answer, of defining a problem in his own terms, and working out his.own solutions, he is not really learning how to learn He's learning how to follow instructions. The student needs to discover for himself what works, what doesn't work, and why.

In the same vein, he can't be expected to act like an adult unless he's treated like one. Only by having to make his own decisions, act on them, and deal with their consequences can he develop self-reliance and a sense of responsibility.

---

* Neil Postman and Charles Weingartner. Teaching as a Subversive Activity. New York: Delacorte Press, 1969, page 52.

Attempts to individualize learning have often been unsatisfactory. On the one hand, some "individualized" programs provide merely freedom of pace; as Oettinger says, "Each pupil is free to go more or less rapidly where he's told to go."* On the other hand, the alternative that invites the student to "do his own thing" is often so formless that no recognizable learning occurs. EBCE seeks to avoid the pitfalls of either extreme, by providing students a structure -- in terms of core goals and procedural guidelines -- within which they are free to decide what they want to learn and how they intend to learn it.

One of the central mechanisms for providing this structure is the *project*. It requires students to plan and focus their learning in terms of significant questions to answer or problems to solve; identify activities and resources necessary to achieve their goals; and specify the criteria by which their work will be evaluated. The *project planning package* is an additional planning aid, assembling resources around a career or subject area, suggesting project ideas, and providing broad goals that can be used as yardsticks when formulating project goals and assigning credit for completed work. Both of these are discussed later in the section on program planning. You will want to study the five Far West packages -- developed for the fields of Communications and Media, Commerce, Life Science, Physical Science and Social Science -- and also read Package Development.

Working with each student as an individual makes your job seem harder at first, especially since you will be dealing with the student's entire educational program and not just a small fragment of it called English or social studies. Yet this is precisely what makes your role more interesting and satisfying. Most teachers never get to know the whole student and work with him in several essential areas of learning at once. The resourcefulness and flexibility this requires allows you to utilize everything you know about any subject or field, and to draw on your own practical experience in the workaday world. One of the main reasons EBCE is attractive -- to students and the adults who participate -- is that it integrates areas of knowledge and skills (normally compartmentalized in the classroom) in the same way they converge in real-life situations. This does not mean, of course, that you are expected to be a modern Aristotle. You will not be able to help students improve all their skills, and sometimes students will get into areas or subjects you know little about. In these cases there are several resources available to you.

---

* Quoted by Charles E. Silberman in Crisis in the Classroom, New York: Random House, 1970, page 137.

First, the Skills Specialist will be responsible for providing students with supplementary assistance in whatever basic skills they need to work on (reading, writing, math, and so forth), primarily through tutorials or programmed instruction; and for helping students learn, through workshops or courses, subjects (such as Spanish or trigonometry) they cannot effectively pursue with resources in the community. (See Supplementary Curriculum for a description of how this assistance is provided.)

Second, regardless of how scant your expertise may be in a particular area, you do know how to help students ask the right kinds of questions to inquire into whatever subject or field of work interests them. Remember also that you have colleagues, in the community as well as in the EBCE school center. Use them. Often, too, a little quick and judicious reading will be both feasible and helpful (and it won't hurt students to see that learning doesn't end with diplomas).

The Primary Emphasis Should Be on Process Skills

One of the most important differences between EBCE and conventional schools is often raised by parents in terms of quantity: "Will my daughter learn as much biology as she would in a standard biology class?" Or in terms of prescription: "Will she learn the same material covered in her American government class?" The answer to both questions is a qualified no. EBCE was intended as an alternative approach to learning traditional subjects. This difference begins with the assumption that learning how to learn is more important than acquiring factual information; that generalizable process skills -- such as questioning, defining, observing, synthesizing, evaluating -- are more immediately useful than specific content per se. This doesn't mean that content is unimportant. There are things students should know in order to function as effective members of this society. And a major function of package goals (discussed below) is to ensure that whatever content a student decides to focus on will aim at broad principles and concepts that educators and practitioners in the subject field consider essential. But there are many ways to learn them.

The second assumption is that an intensive investigation of, say, city government, based on firsthand experience in the community and focused by the student's particular interests, will yield understanding of political processes that is generalizable to national processes, and that is more lasting and more likely to stimulate further learning than is a textbook survey.

Finally, it is assumed that, through *project seminars* -- in which students meet together and share what they are doing and learning in a common field of study -- EBCE students will receive a broad exposure to the ideas and problems addressed by various disciplines.

What Does Facilitating Mean?

Before we get into program procedures and how to use them, we need to consider what "facilitating" means in its most essential terms, the kind of behavior that defines your relationship with students. You might think of these as general principles to guide your actions in everything you do with students, individually or in groups.

- Promote confidence in their ability to learn: give positive reinforcement as you react to their work, their plans, and ideas. Let them know it's okay to be wrong -- in part by acknowledging when you are wrong or don't know something -- and that false starts and misdirections are a natural part of the learning process. Students should feel that recognizing "error" is a sign of growth. Urge them to rely on their own judgment, and hazard opinions. (For example, say, "I don't know; what do you think?")
- Maintain an open, nonauthoritarian atmosphere. Students should feel free to speak their minds and express themselves candidly on any subject. Most students are habitually on the lookout for what they are "supposed" to know. They need to learn the habit of

finding out what they actually think and believe, of examining their own ideas and opinions, as a basis for further learning.

- Thus your predominant mode of discourse with students should be the use of questioning, not telling. Your questions should aim at helping them pose problems for themselves, examine solutions, clarify where they are and where they're going. Avoid judging students' ideas or opinions. Rather, try to structure situations that cause the student to evaluate his thinking for himself. Whatever relevant observations you make should stimulate or clarify, not act as summaries that close off further questioning.

- Demonstrate in your own actions the behavior you hope students will learn. If you want them to be planful, take pride in their work, attend to detail, be sensitive to the needs and feelings of others, keep their promises and commitments, and think before they act, you should demonstrate this behavior in your daily work. A "do what I say, not what I do" attitude will only achieve the opposite result.

* * *

The key goals, assumptions, and general principles outlined on the preceding pages provide the framework on which the specific procedures for coordinating student learning have been developed.

A linear, step-by-step presentation of the procedures is obviously misleading. The parts and processes of the Far West Laboratory's EBCE program are separable only in conceptual terms. In actual practice, they do not function as discrete entities, but come together in a dynamic continuum. Such interrelationship is impossible to capture completely on paper. With this in mind, the handbook discusses the essential components and functions of the Learning Coordinator role, in the following sequence:

- Entry Assessment describes the kinds of information about students' interests, goals, and educational needs you will need to obtain shortly after entrance to begin early program planning.

- Program Planning discusses the processes of long-term and short-term planning, including the planning of individualized learning projects using employer/community resources.

- Advisory Groups and Project Seminars describes processes used in working with groups of students in regular discussion sessions designed to help students learn from their experiences and from one another.

- *Progress Monitoring* includes procedures for monitoring students' activities and growth, to identify and resolve potential or actual problems, assess competence, and reevaluate interests and needs.

- *Credit Assignment* discusses criteria and procedures for awarding credit for completed student work.

- The *Appendices* offer additional references and tools, including an elaboration of the FWL-EBCE program goals, a summary description and copies of the forms used in planning and managing students' personalized learning programs, and guidelines for maintaining student files.

Entry Assessment

Entry Assessment

Since people can learn only in relation to what they already know, and will effectively learn only what they consider relevant to their purposes, the first step in EBCE is to find out where a student is and where he wants to go. Entry assessment, in other words, seeks to answer the question: What do you -- and the student -- need to know about him in order to begin mapping out the kinds of learning experiences he wants and needs?

For openers, you will need to know what course and credit requirements he must satisfy to graduate, and how well he can read, write, talk, and compute. You will want to know what his career interests and future plans are now, what subjects he likes, and what kinds of social and political issues concern him. You will also want to know something about his values, self-confidence, past experience, his attitude toward learning, and how he relates to other people.

Obviously, you can't learn all of these things about a student -- not in any depth or with much certainty -- during the few short weeks of orientation.* The process of determining a student's learning needs -- from an untested value to faulty syntax -- is an evolving one, and in fact continues until he leaves the program. Entry assessment is where it begins.

District Requirements

The student's transcript will show you what courses and credits he has already completed. By comparing it with the district requirements, you can determine what he needs in order to graduate. Be sure to review this with the student for accuracy. If there is any conflict between what he thinks he needs to graduate and what the records indicate, you may need to contact his previous counselor to resolve the discrepancy.

Next, find out if the student must satisfy any other district requirements. For example, if he must score at or above the eighth-grade level on reading and mathematics tests and has not yet been tested or achieved a passing score, you may need to arrange for the student to take a district-approved test to determine if he needs additional work to graduate.

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* Entry assessment occurs simultaneously with the student's orientation to the program (a period of approximately three weeks) described in the Orientation handbook.

EBCE Competence Requirements

Apart from district requirements, FWL-EBCE has set minimal performance standards in basic skills, career awareness, and decision-making which all students must meet. These are aimed at the kinds of practical competences a person needs to function in society, to continue learning, and to make informed career choices. (See Exhibit 1 for a complete description.*) You should try to observe the student's skills in a natural context -- for example, in situations that naturally call for reading or communicating with others -- rather than in artificial test situations. Because of time constraints, however, you may need to rely initially on formal testing of some skills.

Quantitative, Reading, and Oral Communications Skills

The checklists and rating scales in Appendix 2 (pages 147 to 152) indicate the kinds of tasks students need to perform satisfactorily in order to meet minimum EBCE requirements (e.g., balancing a checkbook or understanding a news article's main points). As you observe a student's performance in reading, computing, and communicating with others, use the checklists to assess his competence in these areas. The forms enable you to record your observations of what the student can do. After you've had adequate opportunity to assess a student's practical applications of these skills, the absence of entries on a form indicates areas in which he needs additional work to meet the EBCE requirement.

Writing Skills

Soon after entry each student should complete a brief essay (FWS required a minimum of 250 words) which is used to determine if he meets the minimum EBCE writing requirement. The essay should be group-administered under controlled

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* You should decide early in planning your program whether to adopt these or similar requirements.

Exhibit 1

EBCE Competence Requirements

READING

The student must demonstrate that he can read, comprehend, and interpret materials an adult encounters in daily living (e.g., newspapers, magazines, income tax instructions, credit contracts, instructions for operating or maintaining equipment or household appliances, and job descriptions).

QUANTITATIVE SKILLS

The student must show that he can employ basic computational skills in the context of everyday tasks and problems encountered by adults, such as computing interest, making change, balancing a checkbook against a bank statement, computing miles driven per gallon of gasoline, constructing a budget, and computing income tax.

ORAL COMMUNICATIONS

The student must demonstrate the ability to listen and communicate effectively in work situations, showing that he can organize and present ideas or solutions to problems, give informative answers to questions, comprehend and give directions, and listen effectively.

WRITING

The student must demonstrate the ability to write an acceptable prose report or essay of at least 250 words. The student's writing will be judged for sentence structure, spelling, grammatical correctness, punctuation, clarity and organization.

CAREER AWARENESS

The student must demonstrate that he has acquired substantial information about an average of two jobs in each of three career fields for each year he is in the EBCE program. The information acquired about each job should include:

1. the roles and functions of the employee and the relation of the job to other jobs;
2. how one qualifies for entry and advancement (education, experience, aptitudes) and possible routes of entry and advancement in the career;
3. the working conditions associated with the job, including physical environment and social milieux, hours of work, how the job affects the worker's lifestyle, and other conditions;
4. the monetary, psychological, and other rewards which workers receive from the job;
5. the current and projected demands for workers in the field and opportunities for advancement and lateral movement within the career; and
6. a personal evaluation of the occupation in relation to his own interests, values, goals, and abilities, including positive and negative assessments and whether the assessment is likely to change.

CAREER DECISION-MAKING

The student must show that he can apply principles of informed decision-making and planning in formulating post-high school career and educational goals.

conditions, and dictionaries and grammar books should be available for student use. The essays can be rated by the Learning Coordinators or the Skills Specialist using the Writing Scale (page 153). If the student gets a satisfactory rating, he has met the EBCE writing requirement. If not, he can choose between attempting to get a satisfactory rating on the scale under the same conditions at a later date, or opting to have three major written products assessed and achieving a satisfactory rating on each of them.

These initial assessments of a student's current abilities should be shared by you, the Skills Specialist, and the student, and used to determine areas of needed and desired growth. Whenever a student elects to pursue special work in basic skills, additional diagnostic tests keyed to objectives and instructional materials are administered by the Skills Specialist to help the student concentrate his efforts on specific weaknesses.

Career Awareness and Decision-Making

In your early discussions with the student you will learn whether he has already explored some careers in sufficient depth to realistically evaluate them against his own interests, values, goals, and abilities. You may even ask him to test his own knowledge of such careers by completing a Job Information Questionnaire (page 155). Few students will have had the opportunity to seriously investigate more than one or two careers firsthand before entering EBCE; all are likely to need additional work to meet the EBCE requirement in career awareness. When the student demonstrates substantial information about a career, you should so certify on the Career Information Checklist (page 159).

If the student has fairly definite post-high school career and educational plans, you will need to learn how he arrived at his decisions.* In any case, you should look for some indicators of the student's approach to career decision-making:

- His attitude toward planning: Does he see a need for it: Does he actively seek information that will help him make decisions and plans? How much has he thought about what he wants to be doing in five or ten years?

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* The Career Decision-Making Questionnaire and Rating forms (pages 161 to 164) are likely to be most useful after the student has spent a term or more in EBCE. You may, however, wish to use them earlier with students who have already made "firm" career plans.

- His status in formulating long-range goals: How many options has he considered or is he considering? How much information does he have about each alternative? Is he ready to begin focusing in on some specific goals or options?
- His decision-making style: How does he usually make decisions? On the spur of the moment? By default? By trying to weigh the consequences of alternatives? By minimizing risks? How aware is he of his own strategy for dealing with decisions?

It will obviously take some time and many discussions with the student before you will obtain a fairly complete view of the student's approach to and progress in making informed decisions about his own future. Your early observations should, however, enable you to form some hypotheses about the student's needs and begin to identify some strategies to either motivate or educate, or both.

Transcripts, test scores, and rating scales can give you only some of the information you need. The rest must be learned by getting to know the student: talking with him, observing him in day-to-day situations (such as advisory group sessions), and soon by supplementing your own observations with those of other staff members and resources.

Interests and Goals

The Initial Planning Worksheet (page 165) can help you begin to identify what the student presently cares most about and what he thinks he wants to do. It asks the student to name careers he would like to explore, say what he plans to do after high school (e.g., college, job training, or work), note subjects or social issues of particular interest, specify any learning areas in which he would like extra help, and finally indicate from a list of activities (e.g., helping others, working with your hands, selling, or persuading) which ones he likes and dislikes.

The main value of the worksheet is that it gets the student thinking about these things, and it gives the two of you something concrete to talk about, an initial focus for program planning. Go over it with him, asking some probing questions, helping him clarify and elaborate on his answers, maybe even talking about past experiences.

Everything you learn will be useful, but at this point you're looking for some fairly straightforward information. First, his goals: Has he made a career choice? If so, how well informed does it appear to be? If not (and most high school students have not), what does he want from a career, or from life -- for example, to make money, or to improve the world? Or does he view careers as peripheral to life satisfaction, merely a way to pay the rent while he does his thing in his free time? Remember, the purpose here is not to challenge goals and values, but to find out, as clearly as possible, what they are. If a student wants to be a doctor and says he hates science, one of your tasks will be to get him to see the discrepancy for himself and figure out how to resolve it.

Second, his interests: What turns him on? What is he curious about or attracted to? Which of his expressed interests are most likely to provoke the sort of questions good projects develop around, or at least result in exploratory visits to resource sites? If no career, subject, or issue so far seems worth looking into, what kinds of things does he like to do: relate to people, take motors apart, be outdoors? What are his hobbies and favorite leisure activities? Often this kind of information will reveal potential career and subject interests you and the student can build on. In addition, the student may find it helpful to take some career interest inventories to generate some hypotheses that he can test in the community.

During these initial discussions, you will also want to be alert for ways in which needs and interests appear to converge. If a student needs social science credit and seems bothered by the mess over malpractice insurance, you already have a strong lead for a possible project.

Learning Style

As orientation activities get underway, some students will plunge right in, grasping procedures and using them to make decisions. Others will dawdle in vacant uncertainty, not knowing how or where to begin. What kind of learner a student is at entry depends on some basic attitudes and mental habits. Although this is the least tangible kind of information, it will determine in large part how you work with a student, so some initial observations are important:

- Is the student outgoing or shy? Can he telephone a resource with ease, or does he freeze at the thought of going out to interview an adult?
- Does he participate actively in advisory group sessions, or slouch inattentively?
- How does he feel about himself? Does he seem confident in his abilities, or appear to expect failure? Does he have a history of not finishing what he starts?
- How well does he understand his strengths and weaknesses? Does he seem resilient and willing to discover shortcomings, or fearful of criticism, worried about being "right"?
- Can he act on his own initiative, or does he want to be told what to do? How much structure is he likely to need?
- How well can he define problems and make decisions? Does he appear to weigh options and anticipate consequences, or make impulsive choices, unaware of alternatives?
- Does he ask pertinent questions and absorb information readily, or seem to have trouble finding out what he wants to know?

Observations like these will help you decide where to start with a student -- identify goals for change and determine the methods and kinds of activities most likely to bring it about. (For example, you can begin to help improve his self-confidence by initially drawing on his strengths, eliciting "successful" responses in advisory group sessions, and so on.)

* * *

To sum up, these are the kinds of pieces you will begin to put together in helping the student develop a long-term plan aimed at building on past experience, present ability, and personal interest. As you synthesize these observations and conclusions, there are several things to keep in mind.

First, whatever "profile" you and the student come up with for planning purposes is tentative. It amounts to a first reading. It will consist in part of some educated guesses that must be tested against further observation and performance. It's too easy to foreclose on an early "image" of a student, and not be alert to what subsequent experience reveals about him. This is true of even the most "objective" diagnostic information. Indications of current achievement levels are important, but should not be taken as gospel, because students will be performing in a completely new environment. For example, you may discover that a student is comprehending what he reads far better than his test scores indicate, simply because he's motivated, because what he's doing in the community has made him want to find out some things for himself.

Second, during this period of orientation and initial assessment, the student is learning some things too, not just about himself, but about his relationship with you, what he can expect from you, and what you will expect from him. During these early discussions, through the kinds of questions you ask and feedback you offer, the student is finding out that you're here not to tell him what to learn, but to help him decide for himself, that he can in fact pursue genuine interests in a way that makes learning "real" for him. And this means in part that he, not you, will assume major responsibility for developing a clearer sense of his goals, interests, values, strengths, and weaknesses. The process is one of making some assumptions, testing them through practical experience, then refining or revising them based on new information, and incorporating such "revisions" into subsequent planning sessions. It does not end with orientation, it only begins here, and shortly becomes what we call program planning and progress monitoring.

Program Planning

Program Planning

After you and the student have an initial fix on his academic needs, personal interests, and future aims, the next step is to focus this information and use it to start planning his program. It's a process of agreeing on where the student wants to go, then deciding how he intends to get there. Working together, you will formulate some long-range goals -- such as careers to explore, college to prepare for, skills to improve, and credits to earn -- then use the goals as guidelines for selecting and developing specific learning activities in the form of projects, tutorials, courses, and so on. These activities will be designed to move the student toward his stated goals, while at the same time refining those goals through experience as he comes to better understand himself and the world he is preparing to enter.

Before getting into the first part of the process -- long-term planning -- a few points should be made about the nature and purpose of program planning in general.

The procedures discussed below -- whether for planning a single resource visit, or developing an extensive project utilizing many resources over a period of time -- serve two main purposes. First, they are intended to help students learn how to plan: to analyze their needs, set objectives, identify necessary resources and courses of action, manage time, and accept responsibility for their decisions. The second and more obvious purpose is to ensure that each student is engaged in significant learning tailored to his interests and educational needs (including the need to meet graduation requirements). Remember that the approach you take in helping a student plan his program will govern what he learns in the process. Your aim is to structure situations so that the student must exercise his own judgment. You will help him identify the decisions that must be made, and look at alternatives and their consequences, but then he must make some hard choices. If you make decisions for him, he can hold you, not himself, responsible and will learn little by the experience.

Planning a student's program in EBCE takes time. It's an evolving process, and often it will be several weeks before you and the student know specifically what he wants to accomplish, with what resources, and how he will demonstrate what he has learned. You will not be able to pin down some details until the student's project plans begin to crystallize. Also, the sequence is not strictly linear. Students will begin getting ideas for projects and start visiting resources before their Long-Term Plan is completed, and weeks later the student may discover that a resource he wanted to work with on his science project won't be available until next term, so he must go back and rethink his Long-Term Plan.

Finally, a word should be said about the forms referred to throughout the following discussion. The Long-Term Plan, Project Plan, Weekly Activity Schedule, and others are designed to facilitate the process of individualized, experience-based learning. Using them as aids, students learn how to plan effectively, manage their own time, and develop skills in inquiry and problem-solving. They are also tools to help you document students' plans so that you (or someone filling in if you are ill) can keep track of what your students are doing, as well as explain and justify their activities as part of a coherent program to parents or administrators. The forms are means, not ends in themselves. If a student has internalized the process and can plan a project just as well, or in more detail, on notebook paper, let him. Just make sure that it's complete and that you have a copy on file to serve the second, record-keeping, purpose.

Long-Term Planning

During orientation, your students have been introduced to EBCE program planning procedures through the workshops you conducted and will have begun some serious thinking about their own goals, needs, and interests. You are now ready to meet individually with each student to help him begin to put all this information together into a Long-Term Plan. The Plan provides a framework to use in making specific decisions about what to accomplish, how, and when. If you will study the form (see page 169), the following discussion will make more sense.

It is advisable to schedule planning conferences of at least an hour with each student. (More time, or additional conferences, may be necessary with some students before they are able to complete even tentative Plans.)

These conferences will be more effective if you and the student have done your homework. Give the student a copy of the Plan on which you have entered "Credits Needed" and ask him to complete the other sections and think about what he wants to accomplish during the current term and school year. Few students will be able to fully complete a Long-Term Plan on their own, even after several terms in the program. Asking them to try, however, will at least help them to identify in advance what they still need to work out with your help.

As you sit down with the student to develop his Long-Term Plan, you should have a copy on which you have entered only his course and credit needs to graduate.* The remainder of the form should be blank, to be completed by you or the student as decisions about his tentative goals for the term and school year are made. Don't try to push the student to make premature decisions simply to get the Long-Term Plan filled out.† The process and the results, not the form, are what is important. If necessary, ask the student to seek additional information (e.g., find out what the requirements are to enter an apprenticeship program after high school, or talk with his parents about his desire to graduate early) and schedule another appointment to firm up his Plan.

Obviously, you will need to be familiar with available resources; schedules of workshops, project seminars, and tutorials; and the criteria for an acceptable student program agreed on by your staff. (Exhibit 2 shows the criteria used at Far West School.) Your task in long-term planning with the student is to ask probing questions, explain alternatives, and point out possible consequences as necessary to help the student clarify his goals and make sound decisions about what he will do when. You will need to discuss the following kinds of information.

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* In subsequent terms you will also want to enter in advance the student's progress in meeting EBCE requirements.

† During the student's first term in EBCE, it may take two or three weeks after orientation before he has a reasonably complete Long-Term Plan. In subsequent terms, he should complete a Long-Term Plan no later than the fourth week of the term.

Exhibit 2

Criteria for an Acceptable Program

Student programs in EBCE should provide for or include the following:

- Progress toward meeting graduation requirements, including earning at least 25 EBCE credits* per term (or semester)
- Progress toward meeting EBCE competence requirements
- Activities aimed at expanding knowledge and skills in the core curriculum of EBCE: life skills, career development, and basic skills
- 25 to 30 hours of program activities per week
- 50% of time spent in project activities, including approximately 30% of time at resource sites or in community-based research.
- No more than two EBCE workshops or tutorials
- No more than one external course
- Written staff waivers in the student's file for any deviations from the above

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* *10 EBCE credits equal 1 Carnegie unit.*

Career and/or Educational Plans

A student's learning experiences in EBCE should help prepare him to make realistic choices about what he wants to do after high school, help him clarify his goals, and acquire the skills and knowledge necessary to pursue them.

Ideally, career planning involves considering a large number of alternatives, acquiring information about each and comparing it with information about oneself, then focusing down to a smaller set of options. If the student has firmly decided to be a doctor, but has not considered any alternatives, you will want to encourage him to explore other careers, as well as investigate medicine more intensively, while working to meet college entrance requirements necessary to pursue his expressed goal. On the other hand, if the student lists a wide set of options, but has little information about or commitment to any of them, you will want to help him get more data to begin sorting out the alternatives. You will also encounter students who can list no long-range plans or will just put down anything (bush pilot, writer, President) because there is a blank on the form. Your task then is to find strategies to motivate the student to even start thinking about his future and exploring careers. Finally, you will encounter students who are committed to a plan that seems unrealistic to you based on what you know (or think you know) about their abilities (e.g., the student who reads at the fourth-grade level, yet wants to be a lawyer). Here your job is most difficult -- to find ways for the student to learn for himself, firsthand, about the career requirements, the competition he will face, the probabilities of his succeeding, and how hard he would have to work to do so.

However well-informed or realistic you consider the student's expressed aims, you will want to help him plan his EBCE program so that he has opportunities to examine and clarify his goals while he is progressing toward them.

Graduation Requirements

As part of entry assessment you will have compared the student's previous transcripts with your district or school's graduation requirements, and entered his course and credit needs in the "Credits Needed" column on the

Long-Term Plan.* You will want first to make sure the student understands the requirements and agrees with your computations of the credits he still needs in order to graduate. In case of disagreement, you may need to confirm your information with the student's previous (or current) counselor. You will also want to confirm with the student his planned graduation date, and determine whether it is feasible given the number of credits he needs yet to earn.

Because you want to capitalize on the student's expressed interests whenever possible, you and he should discuss his desires to explore specific careers, subjects, or issues (page 2 of the Long-Term Plan) before deciding how many and what kinds of credits he plans to earn during the current term, next term, next year, and so forth. The student interested in investigating the current problems of malpractice insurance, who thinks the state should intervene, might plan first to work on a related project to earn required government credit (thus combining needs and interests), rather than planning to do a project in world studies to meet another requirement. When the student is ready, ask him to set specific (though tentative) goals for the amount of credit to be earned in the current and subsequent terms. Then have him total the columns for each term. Check these totals to assure they are allowable by the school or district, and acceptable in terms of your own requirements for participation in EBCE.†

Remember, you are asking the student to decide what he will do when, to set goals especially for the current term, but you want to assure that he makes informed decisions. For example, you may want him to consider the possible consequences of earning course credits out of the normal sequence in your school or district. In some districts sophomores usually take biology to meet a graduation requirement. If a sophomore in EBCE plans not to take

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* If you are unable to obtain the transcipt(s) in time for your first planning session, you can still estimate credits needed based on the student's grade level and a discussion with him of courses he has completed. Remember, some students may have attended schools outside the district and/or private schools, and not followed your district's normal course sequence.

† Oakland schools allowed students to earn no more than 4 Carnegie units a semester; Far West School required that students work toward at least 2.5 units per semester, the minimum required for timely graduation.

(or earn credits in) biology until his junior or senior years, then leaves the program after a year and returns to the regular school, he may, as a junior, have to take a sophomore course. This may or may not be a potential problem depending on the student's attitude, but he needs to understand the possibility.

EBCE Requirements

When you first engage a student in long-term planning conferences, it is probable that the only EBCE competence requirements you will have had time to assess are his writing and oral communications skills. So on the first Long-Term Plan it is likely that only these two will be dealt with. You will have opportunities, or must make opportunities, to assess the student's needs in career awareness, reading, and quantitative skills throughout the first and subsequent terms as he plans and completes projects and products. The student can satisfy the career decision-making requirement (that he demonstrate "informed" decision-making, not that he has decided on a career) at any time he chooses by completing the Career Decision-Making Questionnaire or other performance test which you will then evaluate, using the Career Decision-Making Rating form. Please refer to the specific statement of requirements on page 15, and to the rating forms designed to record student completion of requirements, Appendix 2, pages 147 to 164.

If a student does desire to expand his knowledge or skills in these areas, your job is to help him identify resources and plan activities that will enable him to do so. If he does not recognize a need to expand his knowledge or skills, whether he has already met the requirement or not, your task is to find resources or strategies to increase his motivation. Even a student who has met the minimum requirements should be encouraged to further develop his skills as means of adding to his own educational, career, and leisure resources.

Careers the Student Wants to Explore

This category may seem redundant with the first kind of information requested on career plans. Yet student responses to this item are often revealing. They may list here careers they do not include in their present plans. Or they may list jobs related to a career they already think they want to pursue, indicating a felt need for some further information. Or they may have nothing to put in either place, indicating a need for taking some career interest inventories to at least identify a field they might begin to explore. In any case, you will want to get the student to go beyond identifying careers he would like to explore and identify when he will actually investigate them; that is, to set some goals for the current and subsequent terms. The student's goals may well change in a few weeks or months. He should know that he can go back and adjust his plan as his interests or needs change with experience. But he needs a plan to start.

Subjects or Issues the Student Wants to Explore

The student may or may not have pressing interests in certain subject areas or in social, political, scientific, or other kinds of issues and problems. If he does, you will want to capitalize on them in helping the student plan his program and projects. If not, you will want to work to expand his curiosity.

Additional Needs to Pursue Plans

Students planning to enter a specific college or training program should find out what requirements they must meet (e.g., foreign language for college, algebra for an apprenticeship program) and decide when they plan to complete them. Students should also be encouraged to identify and include specific skills needed to obtain employment or pursue other post-high school plans (e.g., preparing job applications, operating a cash register, or learning conversational Spanish for a trip to Mexico).

Setting Program Goals

Once you and the student have determined what he wants and needs to learn, the next step is to decide how he is going to learn it and when. To help him do this, you will want to explain the different learning resources and activities from which he can choose to meet each goal (doing a project with resources in the community, taking a tutorial, workshop, or high school class, enrolling in an external course, working independently using programmed materials, or combinations of these). You will also want to help him see ways he can combine his needs and interests in the same activities. For example, he can combine his interest in ecology with a project to earn his required science credit, or his interest in a career as probation officer with a project to earn government credit.

But student interests and needs will not always fall together naturally as in the examples above. You might have a reluctant sophomore, for example, whose only interest is in art, who couldn't care less about exploring careers, and who has yet to complete a course required for graduation. What do you do? First you help the student identify ways to pursue his interest in art and earn elective credits at least. He might take an art course offered by the high schools or other agencies (such as the Parks and Recreation Department), combined with a project in the Communications and Media Package, working with a Resource Person who is a graphic artist. You show you are serious about helping him pursue his interests; you encourage him to seriously explore careers in the arts. Then, of necessity, you confront him with the other decisions he must make in planning his program.

For example, he needs 150 credits to graduate;* 50 a year or 25 a semester. He needs English, social studies, science, math, physical education, and elective credits. As a sophomore, he must have physical education; it's required, but he gets to choose how to meet the requirement. So now he plans to earn 5 credits in physical education, as well as 5 credits in art. Your program requires that he plan to earn 25 credits per semester for normal progress toward graduation. He still has to choose in what subject areas he will earn 15 credits. You explain the pros and cons of getting requirements out of the way first. He chooses to work on math, English, and world studies during the current term for his remaining 15 credits. His Long-Term Plan is complete; his tentative goals for the current term at least are identified. You both know he can change them if necessary as you begin to plan more specifically how he will meet each goal.

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* Ten EBCE credits equal 1 Carnegie unit. If your program uses a different credit system, you can simply pencil in realistic figures and still follow this example.

Selecting and Scheduling Activities

Through your long-term planning conferences, the student has formulated some broad goals for the term -- what careers or issues he wants to explore, what credits he wants to earn, what basic skills he wants to improve -- and decided generally how he is going to accomplish each (completing projects, workshops, tutorials, independent study, or external courses).

The array of learning activities and resources from which students can choose in planning their programs for the term will vary from one EBCE program to the next. At Far West School, students could select from the following kinds of activities:

Projects. Individual or small-group projects include field work with resources in the community, related reading, and completion of at least one tangible product, along with participation in related project seminars. In general, the project format is appropriate for students to use in exploring careers, researching subjects or issues of interest, and earning both elective and required course credits (depending on the resources available). Through experience-based projects students can also improve and apply basic skills in practical situations.

Projects are less appropriate, or should be combined with other activities, when the student needs intensive and guided drill and practice to master a desired skill or subject, e.g., for basic reading, writing, and math skills; for advanced mathematics such as algebra, geometry, trigonometry, statistics, or calculus; or for basic grounding in a foreign language.

Depending on the student's previous background in a subject, his career and educational plans, his capacity for self-directed learning, and the availability of willing resources, you and the student may also find the project format alone insufficient to meet certain other kinds of learning goals. For example, the college-bound student who wishes to major in physics should be encouraged to enroll in a high school or community college laboratory physics course to acquire a thorough foundation in the subject -- along with completing a project with appropriate Resource Persons to test and clarify his career goals and to learn practical applications of what he is studying.

Other Activities. Supplementary learning activities are discussed more fully in Supplementary Curriculum. Which kinds will be available to your students will depend on your own program's resources and relationships with district schools and colleges. Far West School students could choose from the following supplementary (non-project) activities and resources, but had to combine them whenever feasible with project activities. The Far West EBCE staff offered *individualized tutorials* and programmed study geared to the specific learning needs and objectives of a particular student, and small-group tutorials and *workshops* to assist students with common needs or objectives. Far West students were also encouraged to take advantage of *external courses* as appropriate to meet certain learning needs -- that is, courses and classes offered outside EBCE by the high schools, community colleges or other agencies such as the Red Cross or the Parks and Recreation Department.

In helping an individual student make decisions about which of his goals to pursue through projects, and how much of his total program should consist of project activities, you will want him to consider the following:

- How well can he plan his own activities and manage his own time? A student with no experience in self-directed learning may take less risk by phasing into it, planning only one project the first term, and filling out his program with more structured activities such as workshops, tutorials or external courses.
- How many projects can he handle at once? One student may be better off planning and completing one by midterm, before starting the next. Another may prefer working on two or three projects simultaneously.

- Does he possess the background skills and knowledge necessary to do the kind of project he wants to do? The student who wants to work on a project with an accountant, but lacks some basic math skills, may need to complete a tutorial this term and plan to work on the project next term (and may need to find this out for himself by visiting the resource, rather than just being told so by you).

- Are the kinds of resources he needs available or likely to be developed in time for him to pursue a specific kind of project this term? If not, the student should postpone the project until next term and complete a Request for Resource (page 195) to inform the Resource Analyst of his need.

Experience-based projects constitute the heart of the student's learning program. But it takes some time to develop detailed project plans (discussed in the next section). The student will be testing some initial interests through Orientation visits with resources, looking through Resource Guides and project planning packages, attending project seminars to discuss possible topics, and so on. In the meantime, you will want to help him firm up his other program plans, such as tutorials or workshops he wants to take, and rough out a schedule which allows him ample time to work with resource people in the community.

As you and the student begin to work out the details of his program, you will want to have available blank copies of appropriate planning forms, including the Weekly Activity Schedule, Request for Supplementary Assistance, External Course Description, Physical Education Plan, and Overview of Student Activities. (See Appendix 2, pages 171 to 179.)

As soon as possible after completing the Long-Term Plan, you and the student should accomplish the following intermediate planning steps:

- Identify the project seminars the student should attend to begin firming up topics for projects and identifying appropriate resources. Enter the times of these seminar meetings on the student's Weekly Activity Schedule.

- Block off the times of the student's required advisory group meetings on his weekly schedule.

- Identify any regularly-scheduled workshops or courses the student desires to enroll in to pursue his goals for the term, complete appropriate planning or request forms (such as the Request for Supplementary Assistance or External Course Description), and block off meeting times on the student's schedule (recognizing that enrollment limits may require changes later).

- Identify any needs or goals requiring supplementary assistance where the student must obtain additional information from the Skills Specialist or other staff before selecting specific learning activities. Prepare a Request for Supplementary Assistance and have the student make an appointment with the Skills Specialist to discuss his needs and options. As soon as the student's needs are further diagnosed and activities selected, enter meeting or appointment times on the student's Weekly Activity Schedule.

- If the student needs or desires to engage in physical education activities for credit, complete a Physical Education Plan and/or an External Course Description as appropriate.

When the above decisions are made, all regularly-scheduled activities should be blocked off on the student's Weekly Activity Schedule. Before giving final approval to these activities, you should assure that the student will have adequate time available for working on projects with resources in the community. (Far West School required that students have five full mornings or afternoons available for such field work.) If the student's program allows only an hour here and two hours there for appointments with resources, the student will not have adequate time to adjust his schedule to accommodate those of the resources he wants to work with, nor to spend sufficient time at resource sites to engage in significant learning.

As the student decides which activities he will engage in to earn needed credits, you should record his plans on the Overview of Student Activities. The Overview along with the Long-Term Plan provides a ready reference for use in determining the completeness of the student's plans and program.

Planning Supplementary Activities

While the student is attending project seminars, and visiting Resource Persons and Organizations to firm up his project plans, he should also begin working with the Skills Specialist to plan any supplementary learning activities he has chosen. (Procedures for planning supplementary learning activities are discussed in detail in Supplementary Curriculum. As the student's Learning Coordinator, you are responsible for assuring that any planned supplementary activities (such as tutoring in math) are consistent with his overall program and integrated whenever possible with his project activities.

Physical Education

If the student is required to or wants to enroll in a regular high school physical education course, your concern may be limited to noting the fact on his Overview of Student Activities and assuring that the scheduled time of the class does not interfere with his EBCE activities. If your students have the option of earning physical education credits through verified independent activities or other external courses, make sure that each student's planned activities are recorded on a Physical Education Plan or External Course Description, as appropriate. Far West School encouraged students to meet the state's physical education requirement by integrating planned physical exercise into their schedules just as working adults should do. (However, for credit to be earned students had to identify someone who could verify they had in fact engaged in the planned activity.) Students interested in team sports were encouraged to form groups and even compete with teams from other alternative schools in the area. Being located in a downtown office building, the school arranged for students to use recreational facilities and equipment at the YMCA, at a local church, and at a Parks Department community center. Far West School students also met their physical education requirements by enrolling in courses offered by profit and nonprofit agencies (including judo, aikido, belly dancing, lifesaving and weight lifting).

External Courses

In addition to helping a student weigh the pros and cons of taking high school, community college, or other courses outside EBCE to meet certain of his goals, you will want to make sure that his decisions are recorded and consistent with program rules or requirements and with his other planned activities.

To ensure that students had adequate time available for experience-based learning, Far West allowed them to enroll in no more than one outside course per semester (and no more than three internally-offered workshops or tutorials) without prior written permission from the Program Director. Students desiring to enroll in an external course for high school credit had to give their reasons and obtain their Learning Coordinator's advance approval on an External Course Description. Far West students were also required to integrate any external course with a related project, to merge career exploration with their academic study, unless there was a legitimate reason for not doing so. Some legitimate reasons were that the program had not yet developed any appropriate Resource Persons or Organizations with whom students could work on related projects, or that requiring a project was just too artificial (e.g., if the student wanted to take a typing course just so he could type his college term papers).

To receive credit for a completed course, whether part of a project or not, the student had to obtain a final report indicating satisfactory completion from the course instructor and give it to his Learning Coordinator. Of course, if the student is enrolled in a regular class at your high school, the school's normal procedures will govern the recording of credits and grades on his transcript for the course.

Workshops and Tutorials

Detailed planning for participation in workshops and tutorials is usually done by other EBCE staff -- the Skills Specialist, tutor or workshop leader -- in consultation with the student. As the student's Learning Coordinator you should review these plans carefully to make sure they are in fact responsive to the student's needs and consistent with his Long-Term Plan and overall program for the term.

If the student has identified an interest or need which you and he feel can best be pursued through a prescheduled workshop, complete and forward a Request for Supplementary Assistance to the Skills Specialist indicating the student's need and the workshop desired. The Skills Specialist then confirms the student's enrollment in the workshop and its scheduled days and times on the lower half of the Request and returns it to you. After the first or second meeting of the workshop, the student should obtain a copy of the Workshop Description, detailing its objectives and requirements for you to include in his file. You should review the description with the student, make sure that he understands what is expected of him by the workshop leader, and discuss with him ways that he can integrate workshop activities with his experience-based projects. Far West School offered workshops to meet shared student needs or interests in a variety of areas, including French, Spanish, algebra, geometry, trigonometry, psychology, and communications. (Several examples of Workshop Descriptions are provided in the Supplementary Curriculum handbook.)

If the student has identified an interest or need requiring supplementary assistance, but needs to obtain additional information from the Skills Specialist before deciding how to pursue it, prepare a Request for Supplementary Assistance and have the student make an appointment with the Skills Specialist to discuss his options. The Skills Specialist may have to administer diagnostic tests to pinpoint the student's particular needs, especially in basic skills areas such as reading, writing, and mathematics. He can then help the student identify specific areas of weakness to work on, develop individualized goals and objectives, and decide whether to pursue the needed work through independent study, tutorial, workshop, or external course. You should then receive a copy of the Diagnosis and Plan, containing the above information. Again you should review the plan with the student to make sure that expectations are clear, that opportunities for integrating the supplementary activity with the student's work on projects have been explored, and that the schedule and planned credits for the activity are consistent with the student's overall program.

If you find that the student does not clearly understand what is expected in a particular supplementary learning activity, that the objectives or activity are not entirely responsive to his needs or learning style, or that the plans are inconsistent with his Long-Term Plan, you should immediately discuss and resolve these problems with the student, Skills Specialist, and tutor, as appropriate.

By now you are probably wondering why you can't just leave it to the Skills Specialist to work with the student to develop plans for supplementary learning activities, monitor student progress, and award credit when credit is due, leaving you to work with him on his projects. Maybe you will decide that you can. But, first, consider some of the risks in doing so.

As a Learning Coordinator you will be working closely with approximately 25 students. Through individual conferences and advisory group meetings you will get to know each one very well -- their goals, needs, interests, learning styles, initiative, self-discipline, attitudes toward school, and so forth. The Skills Specialist, on the other hand, will be working with many more students to plan specific learning activities to meet specific needs. He will not be able to know each student as fully -- what their career and educational goals are, what credits they need to earn, whether their schedules will allow adequate opportunity for working with resources in the community, whether they can really be expected to work at their own pace through programmed materials or will be frustrated by having to work along with the group in a workshop, and whether they are using the more familiar structure of workshops and tutorials as a refuge to avoid having to plan projects and work with "strangers" in the community. Only you will know enough about the student to help him work out a feasible, integrated, experience-based program, tailored to his interests and needs while meeting district and program requirements. A few simple examples may suffice to illustrate the need for centralized coordination and authority to approve students' program and learning activity plans.

- Working with the Skills Specialist on separate occasions the student plans to enroll in a French workshop which meets Monday, Wednesday, and Friday at 10:00 a.m.; an algebra workshop which meets the same days at 2:00 p.m.; and a writing skills tutorial for English credit meeting Tuesday and Thursday from 1:00 to 2:30 p.m. The student's required advisory group meetings are Tuesday and Thursday from 9:00 to 10:30 a.m. The student also plans to work on projects to earn government and science credit and will need to attend the biweekly project seminar meetings in Social Science and Life Science every other Monday and Tuesday. The student has thus scheduled himself for activities at the EBCE site every morning and afternoon, with never more than a 90-minute block of time available for meetings with Resource Persons to work on his two projects. Not only may he have difficulty even arranging appointments with resources, since he can give them few alternatives, he will never be able to spend more than an hour at a time at any resource site.

- The district allows students to receive a maximum of 40 credits a semester. Working with his Learning Coordinator the student plans projects to earn 25 credits, physical education activities for 5 credits, and a community college course for 5 credits. He then plans additional activities with the Skills Specialist to earn 10 credits in other areas. No matter how hard the student works to accomplish all these plans, at the end of the semester he will not be able to receive all the credits he plans to earn. Worse yet, he may be overextending himself so that he accomplishes less than he is capable of.

- The student is seriously interested in becoming a carpenter and is planning a project with a Resource Person to learn basic carpentry skills. The student has not yet met the district's math requirement. He requests supplementary assistance; the Skills Specialist administers diagnostic tests to pinpoint his weaknesses, and the student and a math tutor, who is unaware of the planned project, then work out specific objectives, performance criteria, and assignments in a programmed text -- with no plans to relate assignments to the kinds of problems carpenters encounter in their work. This is clearly not a crisis, but a missed opportunity to enhance the student's motivation and effort.

Alert action by a Learning Coordinator, who knows more about the student and has centralized responsibility and authority for approving his plans, can head off potential problems and maximize opportunities for helping the student develop an integrated program. Diffusing the authority among several staff members can lead to both unrealistic planning and fragmented learning activities.

As the student is working with you to formulate his Long-Term Plan, and is beginning to participate in chosen courses, workshops, or tutorials, he is also exploring ideas for projects and beginning work on project plans. This process is discussed next.

Project Planning

While you and the student are firming up his Long-Term Plan, going through the steps just described, he should be well into the early stages of developing one or more projects: browsing through packages and Resource Guides, attending project seminars, and exploring possible topics and ideas with resources in the community.

Before we get into the process of helping students plan and carry out projects, it might be well to briefly reiterate their purpose and nature. We have described learning in EBCE as a process of inquiry based on experience. The project format is the central mechanism for enabling you and the student to organize that learning. By focusing a course of study in terms of a subject, a career, or a significant issue, the project approach integrates learning across essential program areas: utilizing direct experience in the community, the student explores careers, applies basic skills, and pursues academic subject matter at the same time. It is also the key planning tool for student learning: it causes the student to set goals, determine activities and resources needed to pursue them, and to specify in the form of goal indicators the ways he intends to demonstrate that he has achieved his purposes.

Helping students plan worthwhile projects and engage in significant learning activities with people in the community is bound to be both the most exciting and the most difficult part of your job as a Learning Coordinator. It's a continual learning experience for you as well as your students. From your discussions with the student and the resources with whom he is working and perhaps a little research of your own on the side, you get to learn along with him about a variety of careers, about the problems people face in their work and the knowledge and skills they use to solve them, and about a wide range of subjects and issues with which you may now have only a nodding acquaintance.

It is also hard work. You have to help students identify and clarify what they really think, feel, and want to do, then help them learn how to plan, work with adults in the community, ask significant questions, evaluate answers, and solve problems they encounter along the way. Don't expect them, or all of them, to know what they want to do and how to go about it. If they already knew how to be independent learners, they wouldn't need you.

Start With the Student's Interests

The first step is to find an interest you can build on. What career areas would the student like to explore? What concerns him most about his future? What bothers him about his society or about people in general? What subjects turn him on? What does he read in his spare time? What kind of television programs does he watch? What are his career goals? Has he checked them out, talked with people in that kind of work, tried to envision himself on the job day after day? From attending project seminars, looking through packages or Resource Guides, or talking with other students, does he already know some Resource Persons or Organizations he'd like to check out?

Most students are self-starters. That is, from visits with resources, kicking around topics and issues in project seminars, looking through packages and Resource Guides, and from talking with you, most students will come up with ideas of the kinds of things they want to look into or maybe even build a project around. Your task will be to help the student focus his interest in terms of some significant questions, and begin mapping out the kinds of resources and activities that will best help him get answers.

You will encounter some students, however, who just have no inkling of what they would like to do and offer you no help in finding out -- possibly because someone, somewhere, slammed a door on their curiosity or initiative and they have developed the habit of waiting to be told what to do. With this kind of student you will have to do more groundwork.

First, make sure he is exposed to all sources for kindling ideas: project seminars to hear about topic leads and interesting Resource Persons; some career interest inventories to at least identify fields he might start exploring through projects; the list of resources from one of the package areas in which he needs to earn credit (and maybe even have him select three resources to visit for Orientations; if he doesn't find a person he wants to work with or a project idea through these visits, he can then choose three more to visit).

In the meantime, go on the assumption that every student cares about something, and that just about any concern can provide good grist for learning. If a student seems intrigued by drugs, use it, talk about it. "Ever wondered what happens to your body when you put a pill or capsule into it? How does marijuana affect perception, reflexes? Finding out might be a way to earn needed science credits. Are there nonchemical, drugless ways to reach the same heightened consciousness that we call getting high? What are these other ways; where are they used? How do they work?"

Or with the "turned-off" student, what are his negative concerns: his dislikes, worries, or gripes? Maybe he believes adults are on "authority trips," or that the American political system is a farce because the average citizen has no say in the decisions that control his life, or that cities are ugly places. Such feelings or opinions can be easily turned into questions worth answering or problems to solve. It involves being an alert listener and a willingness to work with whatever students give you. Most students have never considered the possibility that their discontents could be the mainspring of legitimate and rewarding learning.

If all else fails, if the student really desires to do nothing, you must confer with his parents and perhaps counsel him out of the program to make room for students who do want to make use of EBCE's resources. That action should be taken very cautiously, however, because students do change and interests can appear very suddenly. Also difficult is the student with an abiding interest in some subject, such as astronomy or veterinary medicine, who wants to work on nothing else, even though he still needs credit in government, history, and other subjects to graduate. While you want to capitalize on the student's interests, you do not want to be confined to whatever those interests are now, but to expand the student's knowledge of careers, his physical environment, his society, and himself. Do not feel you are selling out by requiring the student to do a project in a field in which he expresses total lack of interest, in order to earn the credit he needs to graduate. (If most school districts didn't already require that students earn credits across several subject areas, we would have built the requirement into EBCE. As it is, we added the requirement that students explore six careers for each year they are in the program.)

Often students are most interested in what they can do, with whom, than in what they might learn; so finding a project topic frequently begins with finding a resource the student wants to work with.

Planning Resource Orientations

At Far West School we soon learned that students were much more likely to derive something worthwhile from visiting a resource if they had given some thought first to why they were going and what they hoped to learn. So we began requiring them to develop plans for projects before going to a resource site. Students soon pointed out that this was as unfair as a teacher asking them to outline their term paper on the first day of class. Just as students in a course need time to do some listening, reading, and thinking -- to find out what the course is about -- before they can say what they would like to do a paper on, EBCE students need to find out more about the resources they can work with, and the kinds of things they can do and learn at a site before they can develop a full-fledged Project Plan. The Project Sketch approach was developed to allow students to check out resources and possible project topics, while assuring that they did so in a planned and thoughtful way. Using the form (page 185) as a planning aid, the student makes sure he knows why he's going to a particular site (interest in a career, subject, or issue) and knows what questions he's going to try to answer while there.

Before approving a Project Sketch, you should assure yourself that the student has read and understood the Resource Guide, has realistic notions of what to expect from the resource, and has developed a set of questions that will help him move toward developing a Project Plan. It can be very annoying to a Resource Person volunteering his time and embarrassing to you and the student to have a student appear at a resource site (usually a place of work) unaware of what to expect, or with incorrect expectations, or without a clear idea of what he wants to accomplish in the meeting.

Some unfortunate examples from Far West School experience may illustrate the importance of monitoring students' preparation for resource visits.

- The Resource Guide for the oceanographic institute explains that the Orientation for students consists of a morning's cruise on a boat, talking with staff, and taking and testing samples of bay water and ocean floor. It clearly specifies that the student should wear work clothes and bring a bag lunch. The student shows up in a velvet suit with no food and spends a miserable day, hungry and unable to participate.

- The Resource Guide for the state assemblyman's legislative aide briefly describes her job helping constituents deal with governmental agencies and administrative red tape. It suggests project activities through which students can learn firsthand about governmental structure and agencies, relationships between the executive and legislative branches, and so forth. The student arranges an Orientation, not having read the Guide or not having understood it, expecting to find out what it's like to be a secretary. If the LC had not reviewed the student's Project Sketch, looked at the Resource Guide, and asked some

> probing questions to learn that the student had picked a resource totally inappropriate for her purpose, both the school and the student would have been embarrassed. Having caught the error, the LC was able to use the opportunity to help the student decide to visit the resource anyway, but with the questions that would help her perhaps finds an interesting topic for a government project. In the meantime, he would help her locate appropriate Resource Persons she might work with to learn about secretarial careers.

Depending on the student's reading skills and working vocabulary, you may well have to read Resource Guides to him, or explain what they mean.* You will also want to help students learn what kinds of questions to pursue during Orientations with resources. While they should aim at more than yes or no responses, they are not expected at this stage to be highly detailed or focused. For a student planning to visit a political reporter on the local newspaper, the following would be an adequate set of questions on a Project Sketch:

1. What does a reporter do? How does he spend his day?
2. How much does he get paid?
3. How much education does it take?
4. Does he get to pick what stories he will write?
5. What are the other jobs on a newspaper?
6. What kind of project could I do there?

Once the student has worked out an acceptable Project Sketch, and gotten your approval, he telephones the Resource Person or Resource Organization Coordinator to arrange for an Orientation visit. You may want to observe him do this the first few times, or even show him how if he appears reluctant to pick up the phone himself. May students have never conducted business on the telephone, and need to learn how to introduce themselves, explain that they desire to make an appointment to discuss the possibility of working with the person on a school project, and explain why they have chosen to call the particular resource (interest in the career, the organization, or a subject or issue). They may also need to learn to be ready to say if an appointment time is convenient or not, offer alternatives, and write down agreed-upon dates and times. The first few times you may also want to make sure that the student knows how to get to the resource site and is planning to leave on the appointed day in plenty of time to arrive on schedule.

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* Trying to write Resource Guides in such simple terms that students with very limited reading ability can understand them is not only frustrating for staff but insulting to other students.

Typically on an Orientation visit, the student should be trying to find out about the Resource Person's work, about the organization, and possibly more about a subject or issue of interest. If he has an idea for a project, or several, he should discuss these with the resource and find out whether he can really do the kind of things he wants to do with that resource. If he doesn't know what he would like to do, he should ask the resource to explain some of the kinds of things he could learn or do if he were to spend more time, to suggest some possible projects he might get into. (Your resources should be expecting these kinds of questions if they have been properly developed. See Resource Development.)

The student should be prepared in advance to take notes on what is said so that he can review them later and decide whether he wants to work with the resource and start planning a project. If he decides on the spot that he wishes to continue working with the resource, he should arrange the next visit(s). If he decides against further work with that person, he should thank him for his time and communicate his intention to seek another resource. If he does not know yet what he wants to do, he should arrange to call the person in a few days after doing some more research. Resources naturally hate to be left dangling, not knowing whether the student plans to return. There should be closure, one way or the other, as soon as possible.*

Far West staff found that most students soon demonstrated competence in planning and completing Orientation visits with resources, and were ready to handle it alone, with occasional monitoring from the LC through follow-up discussions with the students and with a sampling of the resources they chose to visit. A few, however, in every LC's group continued to need special assistance and supervision. As your EBCE staff shares information about student successes and problems, you may well discover several students with common needs -- learning to phrase questions, to phone resources, even to speak up when they get to the site rather than freeze in front of strangers. In such instances, you may want to plan special workshops to help students overcome these problems, or to have these students learn by observing and accompanying veteran students on some resource visits.

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* When the student and the resource have agreed to work together and arranged a schedule of future meetings, the student prepares a Resource Exploration Approval (page 187) to inform you of his decision and obtain your approval, and to inform the Resource Analyst of the commitment.

To encourage students to try to focus in on projects and select some resources with whom they will spend enough time to really learn something from the experience, students should not receive credit for engaging in Orientations unless they become part of a project. Close monitoring of the student's activities and the status of his project plans is essential early in the term if you are to assure that he doesn't drift from one resource to another, wasting both his time and theirs. Later, you may need to provide the student with more structure, narrow the options with which he is confronted, and press him to make some decisions about what he will work on with whom.

Throughout this initial stage you will be conferring with the student at regular intervals. It's essentially a process of dialogue, of drawing the student out, of helping him look at and clarify what he's saying and thinking. It works in a variety of ways.

You may need to help a student look more closely at the nature of his interest, why he's asking certain questions. There may be some buried assumptions he should be aware of. For example, a student might state as the purpose of his project the desire to better understand the decision-making process involved in federal revenue sharing. Through some probing questions and further discussion, however, the student discovers that what he really wants to do is document corruption. So that instead of finding out how a bureaucratic process works, he would be testing an assumption, or at least a suspicion, about crooked politics.

Often you will need to help students interpret their experiences in the field. For example, a student may be developing a project on preschool learning by working with Resource Persons at two different day care centers. In an early planning session you discover that he likes one of the programs but not the other. He's not sure why. Some probing questions reveal that the one he dislikes is too permissive, lacks structure, the children splatter paint all over the place, etc.; the one he likes is orderly, well-disciplined, and unchaotic. Through further discussion he sees that his preference may tell him something about his current values, that what he has done is identify two different theories regarding preschool education, and that while presently inclined toward the more structured one, the next step is to look into the rationale for each, to discover what the two approaches seek to accomplish and why. Thus, by helping him examine his experience, you are helping him learn more about himself, and deepening the scope of the project.

Developing the Project Plan

As soon as a student decides he wants to look further into a career, subject, or issue or spend some time with a particular resource, he should begin an initial draft of his Project Plan. (See pages 189 to 192. If you have not already done so, study the form, as well as some of the sample projects in packages -- before reading further.) The form is primarily a tool to help students organize their thinking, but it is also useful in assuring that resources understand what the student wants to accomplish, as a record for the file in the event you are called upon to explain what the student is doing and why, and as a mechanism for recording evaluations of student's completed work. For these reasons, students should be required to begin drafting a Project Plan as soon as possible. They will probably not, however, be able to complete the Plan until they have begun working regularly with a resource and doing some related research.

As they begin working with a resource, students should start to refine and organize the questions they will pursue through the project, summarize its theme, and identify the resources, including related readings, they will need to use. It may well take a week or two of further research before the student can even begin to formulate his project goals and indicators. Both you and he should understand that the first draft of a Project Plan is almost never a final one. As the student gets further into his experiences with resources in the community, as he reads, thinks, and talks about what he is doing, his interest may shift or expand, his questions become sharper, and his goals more refined. For a while, changes can simply be made on the original Plan with your approval. By a date agreed upon by you and the student (the "Last Date for Commitment to Complete the Project"), he should be expected to draft a much-refined, final version, obtain your approval, and provide copies to his resources and others he designates to evaluate his work.

Questions to Be Investigated

Developing a Project Plan to give his experiences some clear purpose and focus begins with helping the student formulate some questions he will seek to answer. Frequently you can work from the student's Project Sketch and Orientation experiences with resources. What kinds of questions did he ask in talking with the resource? Did he get answers? If not, why? Is it because there wasn't time in a brief Orientation to learn those things? Does he need to check the information he did get with other resources or against other sources of information? Did his first visit spark some new questions he would like to pursue?

Drawing on the earlier example of a student Orientation with a newspaper reporter (see page 43), you will probably find that the student got some answers to his questions about a reporter's duties, salary, and educational requirements. Indeed, the student may have come back enthusiastic about the resource, already thinking about new ideas triggered by the visit. If not, talk with the student about what he did learn and how he feels about it to see if this is something he might want to pursue. Is he satisfied with the answers he got? Do all reporters for all kinds of newspapers spend their days the same way? Do all managing editors feel the same about the need for a degree in journalism? Does the student feel the information he did acquire is sufficient to enable him to decide whether he's interested in a career in journalism? What did he find out about the other jobs on the newspaper? Does he want to know more about them? The reporter said that the city editor usually decides what stories he should cover and that the editor might make changes in a story after it was written. How does the editor decide what kinds of stories should be covered and which reporter should handle the job? How does he decide what kinds of changes to make in a story, and whether or not to print it?

If the student is not interested in these kinds of questions, he should perhaps begin looking for another area in which to do a project and begin picking some other resources to visit for Orientations. But if his Orientation experience has sparked his curiosity, you should ask him to start drafting a Project Plan, and to include new questions he has as a result of his meeting with the resource(s) and his discussion with you. He may need to meet again with the reporter and the city editor, if possible, and do some reading about newspapers and their effect on public opinion (recommend some books, such as *Luce*, *News From Nowhere*, or *Citizen Hearst*). By your next meeting with the student, he should have a clearer sense of the issues or problems involved in reporting the news. His questions now might include some of the following:

- What is the reporter's most important concern in reporting an event?
- What does it mean that a good writer's copy goes through the meat grinder?
- Do radio and television reporters use different methods and styles from those of newspaper reporters? If so, why and what are they?
- How true is the movie image of the crusading reporter?
- Is it possible for a reporter to be "objective"? Is it a "good" thing to be? Why? What do I think is the right approach to news reporting?
- Why is an event newsworthy? When and why does coverage of an event cease?
- How might the public be affected by the particular way a political event is reported?

You should review the student's questions with him. Are they clear? Will they likely result in some significant learning? If not, you should help him improve them, again by probing to draw out of him what he really wants to know and how he will be able to use the information once he gets it.

As many have pointed out, the art of learning is essentially the art of asking questions -- relevant, appropriate, and substantial questions. Remember, you are helping students ask *their* questions -- not yours or someone else's. Only questions students *want* to answer are likely to engage them in behavior that produces knowledge they will retain and be able to use. This doesn't mean a student can never relate to a question posed by someone else -- in a book, a package, or an advisory group -- or that you can't help him see what a useful question is, but that care must be taken to see that it really becomes his own.

But how do you know whether a question is a good one? These simple guidelines may be useful:

- Does it open doors and lead somewhere? Questions that have yes or no or simple-fact answers don't open doors; questions that have right or wrong answers may close doors. A significant question is likely to cause the student to ask more questions and work to get answers.
- In order to get some answers, will the student have to use a variety of resources, including people with first-hand experience in the field as well as published materials? Questions that can be answered by simply turning to a dictionary, almanac, or text are less likely to expand the student's curiosity.

The student's Plan may well include some questions that seem trivial to you. That's all right, so long as it also includes some significant questions.

If the student has not already done so, you should help him organize his list of questions into groups or categories to make them more manageable and to help him perceive how they are interrelated. Are there some questions he needs to answer before he will be able to answer others? Are some more important than others? Why?

Talk with him about his reading as well as his resource visits. If you are not familiar with the books or articles yourself, get him to tell you how they bear on what he's learning in the community, what insights he's gained, and whether he's been able to use them to sharpen or broaden his questions.

Title, Theme, and Planned Credits

Once the student has a tentative set of questions, it will be easier for him to choose a project title and briefly describe what he wants to accomplish, why (if it's not self-evident), and how he plans to go about it. If the student has not already identified which project planning package to use and started attending the project seminars, he should do so promptly. He may need your help determining which package is most closely related to his project interests. If he hopes to earn credit in different subject areas through a single project -- say in biology and in government for a project dealing with ecological problems and proposed political solutions -- he should be participating in both the Life Science and Social Science project seminars and designing his project to meet the goals of both packages. Until the student's goals and indicators are fully developed, you and he can only estimate the kind and amount of credit he may earn through the project. (To help him even at this stage, you will need a good grasp of the criteria discussed in the credit assignment section of this handbook.)

Resources and Time Estimates

Based on his interests and questions, you should help the student identify (on page 2 of the Project Plan) the Resource Persons and Organizations or Community Resources he plans to use, whether he plans to visit them for Orientations only or to work with them in Exploration- or Investigation-level activities, and roughly how much time he will spend at each resource site. (Resource Development describes these different kinds of resources and the different levels of student involvement with resources, summarized in Exhibit 3.)

The student interested in exploring careers in journalism by working with a newspaper reporter should be encouraged also to talk with a magazine editor and a broadcast journalist as well as local college students and instructors in the journalism department, so that he can compare and contrast what he hears from different sources and draw his own conclusions. If the student also intends to learn how to write news stories, he should plan to work over a period of several weeks with the reporter.

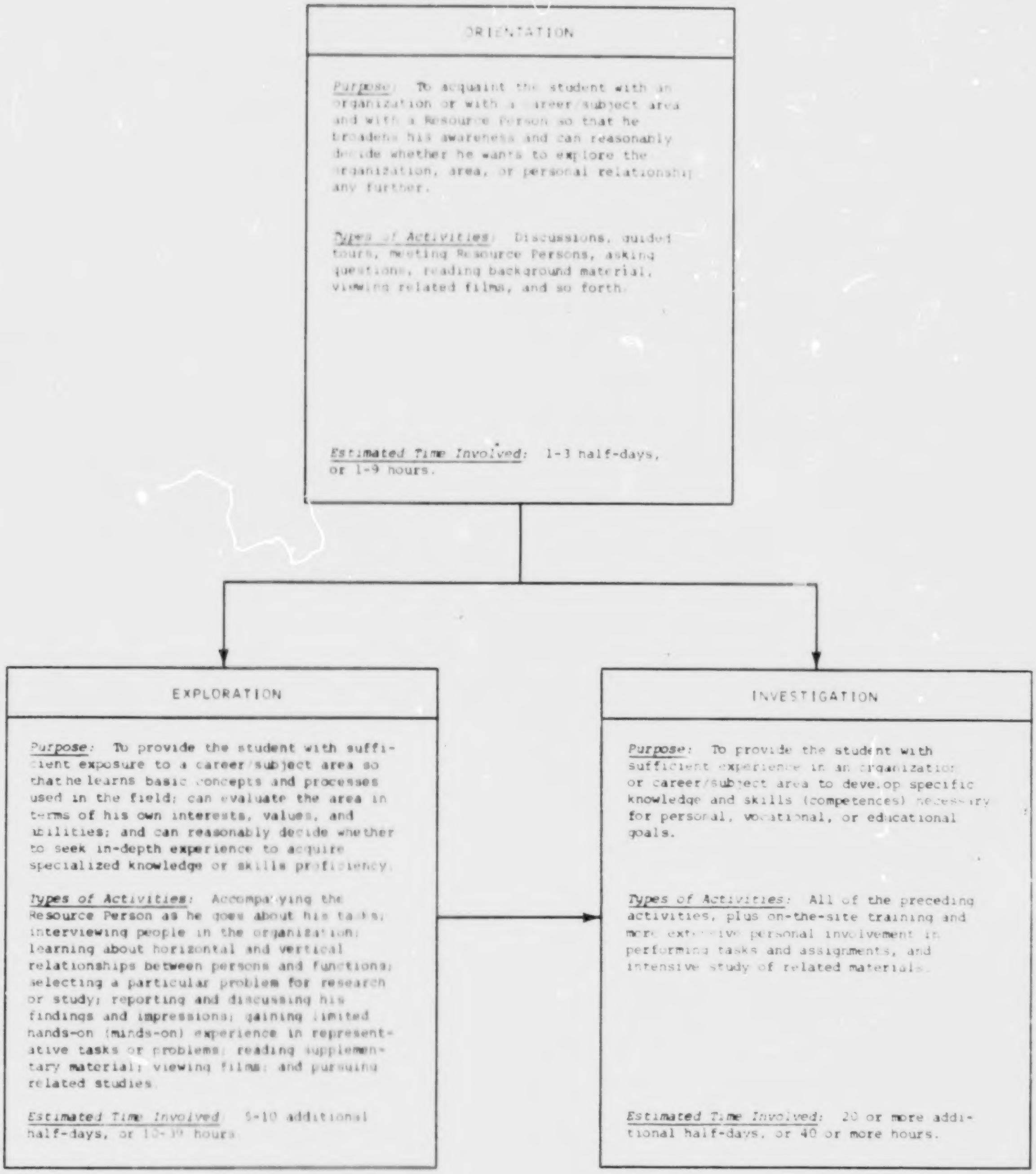
Another student interested in investigating the issue of no-fault insurance should be encouraged to visit a lawyer and an insurance broker as well as a legislative aide to find out his or her views on the pros and cons of no-fault legislation. Depending on the focus of the student's study, he might choose to work further with some or all of these resources.

Students should be encouraged to use as many resources as are available and appropriate to their project interests. They should be required to identify at least one resource they will work with beyond the Orientation level; otherwise, they may never get more than superficial exposure to the activities of working adults.

The student should also include in his project resources some books, articles, or other published sources of information related to his project interests. If neither he nor you know of some related kind of reading, he should ask his Resource Persons and the Package Coordinator for suggestions

Exhibit 3

Levels of Student Involvement With Resources



ORIENTATION

Purpose: To acquaint the student with an organization or with a career/subject area and with a Resource Person so that he broadens his awareness and can reasonably decide whether he wants to explore the organization, area, or personal relationship any further.

Types of Activities: Discussions, guided tours, meeting Resource Persons, asking questions, reading background material, viewing related films, and so forth.

Estimated Time Involved: 1-3 half-days, or 1-9 hours.

EXPLORATION

Purpose: To provide the student with sufficient exposure to a career/subject area so that he learns basic concepts and processes used in the field; can evaluate the area in terms of his own interests, values, and abilities; and can reasonably decide whether to seek in-depth experience to acquire specialized knowledge or skills proficiency.

Types of Activities: Accompanying the Resource Person as he goes about his tasks; interviewing people in the organization; learning about horizontal and vertical relationships between persons and functions; selecting a particular problem for research or study; reporting and discussing his findings and impressions; gaining limited hands-on (minds-on) experience in representative tasks or problems; reading supplementary material; viewing films; and pursuing related studies.

Estimated Time Involved: 5-10 additional half-days, or 10-30 hours.

INVESTIGATION

Purpose: To provide the student with sufficient experience in an organization or career/subject area to develop specific knowledge and skills (competences) necessary for personal, vocational, or educational goals.

Types of Activities: All of the preceding activities, plus on-the-site training and more extensive personal involvement in performing tasks and assignments, and intensive study of related materials.

Estimated Time Involved: 20 or more additional half-days, or 40 or more hours.

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and should search the card file and periodical guides at the local library. Far West students were frequently able to borrow books related to their project topics from the resource people with whom they were working.

In completing the second page of the Project Plan, the student is asked to specify whether there are any special requirements he must meet or materials he will need. Students planning to work with Resource Persons at day care centers, for example, may need health certificates. At some resource sites they may be asked to wear a certain kind of clothing, such as work clothes. Depending on the project, the student may need access to special materials or equipment -- a slide rule, camera, tape recorder, or typewriter. At Far West School, such items were available and could be signed out by students.

The student is then asked to estimate the number of hours it will take him to complete the project, including work on products. This helps him plan his activities and decide when the project ought to be completed. The student enters a projected completion date on the bottom of the page, and agrees to a last date for making a commitment to complete the project -- usually a month before the project is due. This is the final date for revisions of the Project Plan. After that, it comes a learning contract through which you and he agree that if he does certain things, i.e., demonstrates achievement of his goals, he will receive a specified kind and amount of credit.

Goals and Indicators

Students usually find that it takes a little time and a lot of effort before they can complete the last page(s) of a Project Plan, which requires them to formulate goals and indicators, set due dates, and say who will evaluate their work. They will likely need more than one planning session with you, and several drafts, before they come up with goals and indicators that turn their interests into clear learning objectives and will earn them the kind and amount of credit they desire.*

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* Depending on the student, you may even need to draw out of him what he wants to do, then show him how to translate his plans into goals and indicators by doing it for him. Once you have shown him the process and provided him with a model set of goals and indicators, he should be expected to draft his own on the next project -- with your continued guidance, of course.

In developing his goals and indicators, the student is asked to state what he proposes to learn through the project, and how he will demonstrate he has achieved his purpose. If you have reviewed some of the sample projects in the project planning packages, it should be evident that students cannot be expected to formulate goals and indicators until they have engaged in some preliminary work and research in the field. They must know something about a career or subject before they can detail the kinds of things they want to dig into, or the kinds of skills they want to develop or improve. If they don't know that developing an advertising campaign, for example, begins with analyzing the potential market as well as the product or service to be sold, they won't know what they want to learn about the process or what specific skills they want to acquire by working with an advertising manager. They need first to talk with the resource, find out what's involved, and find out what kinds of things they can do and learn at the site.

There are several resources you and the student can draw on when working out project goals and indicators. Both of you should review the Resource Guides for those Resource Persons and Organizations the student will be working with. The sample project activities in the Guides provide concrete examples of the kinds of things students can do and learn at the site. You and the student should study the appropriate project planning package. Each package contains numerous suggestions for projects, including sample projects complete with goals and indicators. Remember that his project questions identify only the kinds of things the student wants to learn about. The student should be encouraged also to identify things he would like to learn how to do through the project -- skills he would like to acquire or improve. For example, the student working with a newspaper reporter and other resources to investigate how the news gets reported should be challenged to try to learn how to write news stories himself. The most lasting learning is likely to be that which includes some real hands-on (or "minds-on") experience with tangible outcomes.

A project goal may be a broad, fairly general statement describing what the student wants to learn through the project. It is a refinement of the student's first-level response to the question, "What kinds of things do you want to learn about or learn how to do in pursuing this project?" The student may respond, for example, "I want to learn about careers in journalism."

As a project goal, that's too vague, so you probe what kinds of things the student wants to know about what kinds of careers. Together you refine the goals so it might read something like this:

> To know the advantages, disadvantages, and requirements of being a newspaper reporter and newscaster, and how these careers relate to my interests and abilities.

Or the student may say, "I want to find out how the kind of organization reporters work for affects the news stories they write." Why would the kind of organization affect the news? Again, it's vague, so you probe. What kinds of things does the student think might influence whether and how news gets reported? Based on his responses, together you work out the following goal:

> To understand how a news organization's audience, its editorial policy, and its advertisers influence the reporting of the news.

Before you and the student are finished, he should have several project goals roughly comparable to these. Don't worry if the student's goals aren't crystal clear yet. They will be further defined by the indicators which he still needs to develop, with your help.

For any single goal a student might formulate, there might be dozens of possible things he could do that would indicate he had accomplished his goal. For example, to demonstrate that he has learned the advantages, disadvantages and requirements of two careers and compared them with his own interests and abilities, the student could:

- complete Career Orientation Guides (see pages 207 to 219) on each career;
- keep a journal, making entries after each of his visits with one of his resources about what he observed and how he sees himself doing that kind of work;
- write an essay that compares and contrasts the careers and describes what he would like most and least about each job;
- in an advisory group meeting give a presentation on the careers and his own evaluation of them as possible futures for himself; or
- do a photographic essay comparing the work lives of a newspaper reporter and newscaster, and discuss with you his own evaluation of these career options.

412

If he's not sure what he would like to do, you should suggest these kinds of options and get the student to choose one or more that interest him. While one indicator might suffice for some goals, others will require a set of indicators before you are satisfied that the student's proposed products or performance tests will really demonstrate that he's accomplished his goal. For example, to demonstrate that he understands and can apply the major steps used in developing an advertising campaign, the student might need to:

- analyze his potential client's product or service to identify its best selling points;
- analyze the potential market in terms of age, income, and lifestyle so as to be able to choose what to emphasize;
- select an advertising theme and approach and explain his choices;
- lay out a budget for the campaign; and
- write and lay out the advertising copy.

Project goals and indicators can be classified in one of three cognitive levels: the knowing level, the using level, and the innovating level. (This is a grosser classification than the Bloom taxonomy,* collapsing six levels into three.) Generally, knowing-level goals require the assimilation of information. Using-level goals require the application of information. Innovating-level goals require students to design or create something new (at least to them). Here are some examples of each level adapted from a student's project:

1. Understand some principles of ecological balance and how these are at work in Tilden Park. (The knowing level)
2. Compare the viewpoints of two ecology educators who hold divergent views on the education of urban children in ecology. (The using level)
3. Develop my own philosophy of ecology education. (The innovating level)

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* B.S. Bloom. Taxonomy of Educational Objectives: The Classification of Educational Goals. New York: David McKay Co., Inc., 1956.

The three levels are progressively more difficult; each requiring a higher level of thinking by the student. You should encourage students to include project goals from the second and third levels. By reviewing the student's project goals over time, you should be able to monitor his growth in the development of inquiry skills. (See the Progress Monitoring section of this handbook.)

A goal indicator is like a performance or behavioral objective developed by the student, in terms he can understand, and approved by you. When achieved, the indicator should show that the student has attained his goal and (when added to his other planned goals and indicators) that he has satisfied the package goals.

To enable a project to be assessed, each indicator should include:

- the task which the student will perform (for example, compare and contrast, describe, evaluate, construct, type);
- the product or performance to be evaluated (for example, a written or photographic essay, a construction of some kind, a taped interview, a musical performance, an oral presentation, or performance at the resource site); and
- the basis on which it is to be assessed. At a minimum, include what topics will be addressed in an essay or report; when possible, include specific performance criteria (for example, increasing typing speed from 30 to 60 words per minute or accurately classifying 25 indigenous plants).

Using Package Goals

As you meet with a student to help him develop or review his project goals and indicators, you should have available copies of the appropriate project planning package and the package goal checklist. Your aim is to help the student develop goals that capture his own plans for what he wants to know or be able to do and how he proposes to demonstrate what he has learned. But you also want to assure that the student is aware of and has capitalized on the opportunities to blend career development with growth in basic skills, life skills, and academic learning. Insisting that student projects be designed to meet minimum package goals assures that such integrated learning is built in. Remember, however, that student interests, not the package goals, are where you and the student must start in working out project goals and indicators. The package goals provide a review and double-check mechanism to assure that possibilities for learning and blending have not been overlooked. They also offer criteria for determining how much and what kind of credit the student will earn when he satisfactorily completes his project. (See the credit assignment section of this handbook and Package Development.)

Once the student has developed a tentative set of project goals and indicators, you should review the entire Project Plan against the minimum requirements in the appropriate project planning package. The package goal checklist is a useful aid for this review. The student's project goals and indicators need not parrot the package goals for the Plan to be judged acceptable and worthy of the credits planned. You should, however, be able to find evidence in the Plan that the student will:

- apply at least two basic skills in acquiring and communicating information;
- either acquire sufficient information about two careers to evaluate them against his own interests, values and abilities, or develop some specific career entrance skills;
- expand his problem-solving skills by investigating a significant question, problem, or issue in the particular field of study or work he is exploring; and
- either acquire an understanding of several major concepts, ideas or principles in the subject area in which he plans to earn credit, or learn some specific skills and techniques. (The number may vary depending on the package.)

If you cannot honestly judge the Plan as satisfying the minimum package goals, you should work further with the student and help him formulate some additional goals and indicators. In some cases, it may be best if you urge the student to plan to do two smaller projects, rather than one large one, to meet the package goals and earn minimum course credit.

Deadlines and Evaluators

Once the student has worked out his goals and indicators, he still needs to set deadlines for completing them and state who will evaluate his performance and products. You should assure that the student plans to submit some outlines or interim drafts of products early enough so that you can review them and provide guidance that he can use in producing final versions. You should also assure that he spreads out his deadlines on different indicators so that he won't be faced with having everything due at the end of the term, and so that you and he have guideposts for judging the student's progress in completing the project.

The evaluator for an indicator can be a Resource Person with expertise in the field, the Learning Coordinator, Package Coordinator, or Skills Specialist. The student can identify a different person for each indicator if appropriate. For example, indicators of career development goals can be evaluated by his Learning Coordinator; an essay can be evaluated for its content by a qualified Resource Person, and by the Skills Specialist for its style and grammar. The student must assure in advance that each person he lists as an evaluator understands what he is being asked to evaluate and agrees to the task. When the time comes for project evaluation, the student asks his evaluators to complete the right-hand columns on the last page of the Project Plan.

Because project goals do not reflect all of the learning that takes place while students are working on a project, credit should be awarded for other significant learning if the student can show credible evidence for it. Such evidence would be additional products or performance tests. The additional learning is recorded on the Project Summary Report (pages 225 to 227).

Criteria for an Acceptable Project

Before approving a student's Project Plan, you should assure that it meets your program's criteria for an acceptable project. Far West School staff required that each project for which the student desired 5 EBCE credits include activities, goals, and indicators which as a set would satisfy the minimum goals of the most closely related package. If the student planned to earn more credit, his plan had to clearly exceed these minimums. If he planned to complete two or more smaller projects to earn 5 credits in a subject area, the combination of Plans had to satisfy the package goals. One of your first concerns in approving a Plan must be to assure that it will warrant the kind and amount of credit the student desires to earn. Criteria for making such assessments are discussed in the section on credit assignment.

In addition to meeting package goals, the project should include Exploration- or Investigation-level activities with at least one Resource Person or Organization, some related reading, and at least one tangible product. The Student Project Checklist (page 193) is a useful tool, along with the appropriate package goal checklist, for reviewing a student's Project Plan for adequacy.

* * *

The above program and project planning tasks obviously take some time, but should not be allowed to drag out indefinitely. Students must be urged to make some decisions and get on with their learning activities as soon as they have enough information to do so. To guide themselves, Far West Learning Coordinators established a set of milestones by which most students should have completed certain plans, resource activities or products. These milestones, shown in Exhibit 4, are helpful guidelines for determining where your students, in general, should be in the planning process and identifying those who are falling behind and need special assistance from you.

Exhibit 4

Learning Coordinators' Milestones

ACTIVITY	END OF 4 WEEKS	END OF 8 WEEKS	END OF 12 WEEKS	END OF 16 WEEKS
LONG-TERM PLANNING	Long-Term Plan Physical Education Plan External Course Description			
PROJECT PLANNING	3 Project Sketches 1 Project Plan with goals	ADDITIONAL PROJECT SKETCHES AS APPROPRIATE → 1 Project Plan with goals and indicators *plus* 1 Project Plan with goals	2-3 Project Plans with goals and indicators	
RESOURCE VISITS	3 Orientations completed 1 Exploration in progress	4-6 new Orientations completed 2 Explorations in progress	3-6 new Orientations completed 1 new Exploration or Investigation in progress	
PRODUCTS		First minor products completed: journals, brief essays, etc. 1 major product outlined	2-3 major products outlined 1 project completed	All products and project summaries completed
PRIMARY FOCUS OF LC/STUDENT INTERACTIONS	PLANNING →	PROGRESS MONITORING → Mid-Semester Review *(Update Project Plans)*		End-of-Semester Review CREDIT ASSIGNMENT →

* *This chart, based on a semester plan, indicates instruments and activities most students should have completed by the times designated.*

Advisory Groups and Project Seminars

Advisory Groups and Project Seminars

Introduction

Regularly-scheduled group meetings in which students do most of the talking are essential mechanisms for helping them make sense out of what they are doing and learning in the community: clarify and consolidate experiences; see relationships among learning activities; and test their knowledge, insights, decisions and conclusions by explaining them to others. Through well-led group discussions you can help all students learn more by sharing and examining their questions, problems, experiences, and ideas with one another. Drawing on individual student projects and activities in the community as the content of the discussion, and probing students to seek relationships and useful generalizations, make teaching as well as learning come alive.

The Far West EBCE program incorporates two kinds of regularly scheduled student discussion groups: advisory group meetings and project seminars. Though both use student experiences as the launching points for discussion, advisory groups and project seminars differ in focus, membership, and frequency of meeting.

Advisory groups bring together students of divergent interests, meet two to three times weekly, and focus on helping students:

- acquire the planning, inquiry, decision-making, problem-solving, and interpersonal skills needed in EBCE as well as in adult life;
- expand their awareness of a variety of careers and subjects by sharing what each of them is doing and learning in the community; and
- clarify their own values, interests, and goals by discussing these with their peers.

Project seminars bring together students with shared interests, pursuing projects related to the broad field of study and work included in one of the project planning packages. The project seminars in each field (or package area) meet at least twice monthly, and focus on broadening students' exposure to the particular discipline. (In addition, workshops or other group learning activities may be organized in response to student needs. They are discussed in Supplementary Curriculum.)

Advisory Groups

Those students assigned to a particular Learning Coordinator constitute an advisory group. They may well have nothing in common other than their enrollment in EBCE and their LC. In fact, it is recommended that students be assigned to LCs in such a way that each LC's group is as diverse as the student body of the program. Segregation by grade level, ability, interests, or future plans would work against the purposes of advisory group meetings. Students are more likely to clarify their interests and ideas by participating in discussions with people of differing views. They are also more likely to learn to respect honest disagreement, and to endeavor to support their arguments with fact and logic, simply because they are confronted with the need to do so. Assuming you have a rather diverse group of students, as intended, your first task will be to establish the kind of environment in which students feel comfortable sharing their experiences, ideas, feelings, and problems; where probing questions are viewed as challenging, but not threatening; and where individual differences are tolerated, not suppressed.

To encourage maximum participation by all students, advisory groups should be limited, if possible, to little more than a dozen students. Larger groups tend to be inhibiting; members do not get to know and feel comfortable talking openly to one another; and it's easier for a few to dominate the discussion while others tune out or sit in quiet anonymity, hoping they won't be asked to say anything. Obviously, if you have 25 to 30 students, you would be well-advised to divide them into two groups for meetings. It is recommended that advisory groups meet two or three times a week for a total of three hours. (The only drawback in dividing a large group into two smaller groups is that you need then to spend six, rather than three, hours a week conducting advisory group meetings.) In order for the group to function cohesively and effectively, it is best if the students come to think of themselves as members of a stable and continuing entity (the group). For this reason, it should have set meeting times and a set membership.

As the group becomes established, students should have substantial input in determining its purposes, modes of operation, and specific activities. (These may change over time, as the group wishes.) You, of course, coordinate and contribute to this process. If you feel there are certain purposes or expected behavior (e.g., not interrupting a speaker) from which the group should not deviate, you may state these in the form of ground rules or guidelines. To encourage student participation in planning as well as conducting advisory group sessions, some Learning Coordinators at Far West School set aside one meeting a week to be organized and run by volunteers from the group. This not only gave students practice in planning and leading discussions, but made them more sensitive to the difficulty of doing so.

If you have not already studied the workshop descriptions in Orientation, you should do so now. They provide concrete examples of the kinds of strategies you can use and the kinds of learning that should result from advisory group meetings. The orientation workshops should help you get the group off to a good start, but you will need to continually plan new and relevant activities to keep it moving and interesting to students.

The following kinds of advisory group activities will help students become better project planners and problem-solvers, more skillful decision-makers, and able to relate to others more effectively, and will help them learn the kinds of questioning and critical thinking it takes to make worthwhile learning occur:

- sharing and discussing ideas about projects;
- relating and sharing field experiences;
- discussing how to plan a project, including variations of the process;
- critiquing Project Plans;
- discussing personal values as they relate to careers or issues students are studying;
- discussing personal problems or concerns (when participants want to);
- presenting project products -- a demonstration or other presentation of what the student has learned through his project, followed by group discussion and critique;

- discussing long-range plans (addressing such questions as, "What kind of life would students like to have? What would they like to be doing five to ten years from now? Does this have any implications for right now? How important is it to plan for the future? How possible is it to develop realistic plans?");
- discussing problems individual students have encountered in developing or carrying out projects, perhaps brainstorming solutions; and
- role playing (allowing students to assume roles that they are unaccustomed to as a rehearsal for what they will be doing in the "real world").

There is a variety of useful, published material offering instructional strategies and activities to help students develop decision-making, problem-solving, planning, inquiry, or interpersonal skills. Some works found helpful by Far West School staff are included at the end of this section.

You should also seek out films or guest speakers on topics of interest or concern to your students, and invite Resource Persons to come and talk with the group about their careers or other special areas of interest. Far West LCs used films and guest speakers to inform and trigger student discussion of a broad range of subjects, including such topics as drug abuse, the value of space exploration, the purpose and effects of unions, managing personal finances, racism, sex-role stereotyping, and so forth. The only caution is that you find out what interests your students, and seek to expand their interests if necessary, but don't impose or expect them to adopt yours.

The real key to advisory groups, however, lies in your skill in getting students to share what they are experiencing, thinking, and learning, and using their experiences to expand the insight of the individual and the group. A student may, for example, be working on projects involving Explorations at a medical laboratory and a pollution control agency. These organizations very likely use many of the same investigative processes. Has the student observed any similarities in the methods used? The pollution control agency is likely to be a political agency, involved in trying to please (or appease) various constituencies. What effect does this have on the agency's functions and effectiveness? What is the student's stand regarding the compromises this could lead to? What clients or groups do the medical laboratory and the pollution control agency serve? How do their clientele differ? What does the student think of the lifestyles associated with the various jobs with which he has contact in these organizations? Would he want to work for either of these organizations? Why? Questions like these can promote the kind of dialogue that will help the student and the group learn from his experiences and observations.

Another student, asked to share his experiences, might remark, "I'm not going back to see that Resource Person again." You might use the statement to trigger a valuable discussion:

LC: You say you're not going back to that RP again. Who?

Student A: Mr. Bridges, the printer.

LC: He's worked with a lot of our students. Why don't you want to go back?

Student A: He's boring.

Student B: I don't think he's boring at all.

Student C: He's not boring, he's kind of stiff.

LC: I'm not sure I know what any of you mean by the word "boring."

The stage is now clearly set for a discussion of the concept of boredom, eliciting different perceptions of what people find boring, demonstrating that what people find boring or interesting varies depending in part on their previous education and experience, and showing the importance of career planning so as not to end up "bored" with your work and your life. Of course, it won't always work out that neatly, but your percentage will increase if you continually probe beneath the surface of students' remarks for underlying definitions, values, and reasons.

To help maintain student motivation and participation in the advisory group you should:

- Keep administrative tasks to a minimum. (Advisory groups should not be used for filling out forms, nor for making other than very brief announcements. Students should be expected to complete and turn in forms to you before or after, not during, meetings; they should be expected to read, or get help in reading, school announcements posted on a bulletin board.)
- Start meetings on time, and don't repeat information for latecomers. (To start late or repeat yourself only proves that you don't mean what you say, and in essence penalizes those who did arrive on time, thus decreasing their motivation to do so in the future.)

- Plan your meetings, and make your purposes for each meeting clear at the beginning. (Nothing is more vexing than having to sit in a meeting that wanders aimlessly, with no apparent direction or purpose. This is not to imply that you should adhere inflexibly to a prescheduled agenda; you need to be light on your feet and ready to take advantage of student interests and remarks. You should, however, have plans, and contingency plans, for how you will get the discussion started and keep it moving.)
- Whenever possible, plan and announce guest speakers, films, or other special activities in advance, and encourage students to do some research and thinking and come prepared with information and questions.

Participation in advisory group meetings should be a required activity for all EBCE students. The best way to ensure attendance and participation is to make the meetings interesting and worthwhile. Students should understand that failure to attend advisory groups means that they and their fellow students are losing opportunities to learn from one another. At Far West School participation in advisory groups does not earn a student credit, but persistent failure to attend advisory group meetings could lead to eventual transfer from the program. Another EBCE staff awards students elective credits in career education for satisfactory participation in advisory groups. Your staff should decide in advance what rewards or sanctions it will attach to advisory group participation.

Project Seminars

Project seminars are designed to assure that students pursuing separate projects in a common field of study, such as Life Science or Social Science, share with one another their questions, issues, problems, and experiences in such a way that they broaden their understanding of the field. These meetings are similar in many ways to graduate seminars in which college students pursuing separate research or study topics meet together under the leadership of a professor to examine problems, discuss research or study designs, present their findings and conclusions to the group for discussion and critique, and draw upon one another's work to form generalizations and discuss some of the theories, principles, methods, and issues of the discipline in general. The key difference is that the EBCE project seminar relates theories and principles to direct experience in the community.

Students planning or actively working on projects are required to participate in the most closely related project seminar. A student working on a biology project would participate in the Life Science Project Seminar, a student planning a government project would attend the Social Science Project Seminar, and so forth.

A regularly scheduled seminar should be conducted in each area for which there is a project planning package. If the size of a seminar group becomes too large -- say there are 50 students working on Social Science projects -- you may have to organize smaller groups based on project topics and interests, for instance, a Politics, Government, and History Seminar, and a Sociology, Psychology, and Anthropology Seminar.

As a Learning Coordinator, you will most likely be designated as a Package Coordinator, the "expert," if you will, for one of the five packages. As a Package Coordinator you will be responsible for planning and conducting project seminars in your field of expertise, assisting students who need help with projects related to "your" package, and sometimes helping other Learning Coordinators evaluate students' products or projects because of your familiarity with the subject. Of course, you can enlist the help of your fellow Learning Coordinators/Package Coordinators when there is occasion to do so. The role of Package Coordinator is discussed more fully in Package Development.

You should plan to meet with your project seminar group (or with each section if smaller discussion groups must be formed) at least twice a month. You should set a regular time for these meetings, which should not conflict with advisory groups or other project seminars -- say at 11:00 a.m., the first and third Monday of each month. On the second and fourth Monday at that time, when the seminar is not formally in session, you should be available as a resource to help students identify project topics, develop plans, select appropriate Resource Persons or Organizations they might work with, and find related books or other reading material.

The project seminar provides a forum for students to:

- exchange and discuss ideas for projects, and share what they are doing and learning through their work with resources and related reading;

- discuss the broad issues, concepts, relationships, and theories of the package career/subject area;
- develop and improve skills in project planning, planning in general, decision-making, problem-solving, inquiry, and relating to others;
- expand their knowledge of careers in the field;
- test what they know by explaining it to others; and
- meet and talk with guest speakers, see films, and find out about resources related to the broad field of study and work encompassed by the package.

Obviously, advisory groups and project seminars share many of the same purposes. The main differences are that, in the seminars, you will be working with students from other LC groups, and you will focus the discussion more on a particular field of study and related careers. In seminars, as in advisory groups, your role is to help students open up and talk about what they are doing and learning through their projects and field experiences. You will use experiences as the base for drawing out and illustrating ideas, issues, questions, generalizations, methods, and relationships between careers in the general subject area of the package.

For example, one student may be working on an ecology project with a naturalist analyzing the effects of pollution on plant growth and reproduction in local parks. Another may be working on a project with a dog breeder investigating effects of heredity and training on the disposition of German shepherds. By asking these students to share their project questions and approach to seeking answers with the Life Science Seminar group, and asking the group to critique their methods, you can help the two students improve their particular Project Plans while illustrating significant research questions and methods to the group. By having them share their observations and conclusions, and asking probing questions, you can draw out, illustrate, explain, and clarify for the larger group the concepts of reproduction, heredity, and environment; some of the known effects of heredity and environment on living organisms; the distinctions between causation and correlation; and the difficulties scientists encounter and the methods they might use to try to distinguish between hereditary and environmental effects.

As with advisory groups, you should endeavor to add interest and variety to project seminars by arranging for guest speakers, films, and even field trips related to the students' projects or to the general field of study. Such activities should, however, be used to trigger further questions and discussion, not as ends in themselves.

To lead such a discussion effectively, to ask the right kinds of questions, you must obviously be somewhat knowledgeable in the field. It's important that you know a lot, and that students know you do, so that you can be an effective model and resource. But your job is to get students to know and understand, and understanding requires that they do some hard thinking rather than simply hear your well-thought-out arguments, summaries, and conclusions. This approach -- probing with questions, expecting students to seek out answers, and responding to answers with more questions -- may be less immediately rewarding than the kind of teaching in which you take center stage and tell your listeners what you know. The fruits of teaching primarily by asking rather than answering are often not immediate and will be in the form of observed changes in student behavior, in the significance and clarity of their questions, and in the depth and detail of their answers.

The trick is to get involved and be enthusiastic about the subject at hand without making it your show; to make your knowledge and experience available as a resource, without taking the ball away from those whose task it is to question, think, and learn. Also do not be surprised, and do not relent, if students are at first uncomfortable with this approach. They may not have had much experience with it. It may, in the end, however, prove to be the most valuable experience you can offer them.

Suggested Reading

The following materials contain a variety of instructional strategies and specific learning activities you might draw upon in planning and conducting your advisory groups and project seminars. This is only a sampling of the kinds of materials available.

Abt, Clark C. Serious Games. New York: The Viking Press, 1970.

Aylesworth, Thomas G., and Gerald M. Reagan. Teaching for Thinking. Garden City, New York: Doubleday & Company, Inc., 1969.

Chesler, Mark, and Robert Fox. Role-Playing Methods in the Classroom. Chicago: Science Research Associates, Inc., 1966.

Gelatt, H.B., et al. Decisions and Outcomes. New York: College Entrance Examination Board, 1973.

Holt, John. What Do I Do Monday? New York: E.P. Dutton & Company, Inc., 1970.

Johnson, David W., and Frank P. Johnson. Joining Together: Group Therapy and Group Skills. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1975.

Joyce, Bruce, and Marsha Weil. Models of Teaching. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1972

Lifton, Walter M. Working With Groups: Group Process and Individual Growth. New York: John Wiley & Sons, Inc., 1967.

Raths, Louis E., et al. Values and Teaching: Working With Values in the Classroom. Columbus, Ohio: Charles E. Merrill Publishing Company, 1966.

Simon, Sidney B., et al. Values Clarification: A Handbook of Practical Strategies for Teachers and Students. New York: Hart Publishing Company, Inc., 1972

Progress Monitoring

Progress Monitoring

Experience-based education is not simply a process of learning by doing. Real-life experience, by itself, does not necessarily yield worthwhile learning. If growth is the cumulative result of trial and error, there must be means of ensuring that the student sees what his errors are, and is able to build on his insights into previous failures and successes. As manager of the student's learning program, you are the primary means of helping him make sense out of what he is doing and learning in the community. You must continually monitor his progress, help him examine his findings, perceive relationships between different experiences, reinforce his confidence with deserved praise, and help him learn about his weaknesses; you must help him identify problems he is having in pursuing his planned goals and activities, weigh and try out some solutions, and replan as necessary. It is a process of keeping track of where the student is -- of collecting and using information about his experiences, growth, and problems -- not only to help the student, but to provide qualitative feedback to resources so that they know how they are helping students grow in understanding and skills, and how they can best continue to do so.

Monitoring student progress is part and parcel of the planning process. Plans are, by nature, tentative. Effective planning requires constant evaluation of progress, the identification of problems and slippages, and replanning as appropriate to achieve, or reformulate, goals.

As you monitor a student's work, you should be seeking information on his performance in three obviously overlapping areas: his work with resources and progress on projects; his participation and progress in other program activities; and his growth in terms of core EBCE goals and competence requirements (if the latter are adopted by your program).

Sources of Information

The main source of information about student performance, progress, and problems is the student himself. In advisory group meetings, you will be asking students to share their project ideas, their experiences with resources, their plans for the future, and their thoughts, opinions, and values related to a wide range of issues. If you attend carefully not only to what the student says, or doesn't say, but to how he conducts himself in these meetings, you can learn a good deal about the student's knowledge, skills, attitudes, and specific activities.

In your weekly individual conferences with each student (scheduled more frequently if he is having difficulties), you will want to review with the student his program: his activities in the preceding week, his most recent experiences with resources, how he is progressing on his projects and any supplementary learning activities, whether he is having any problems getting started or keeping moving, and how he feels about what he is doing and learning. Your aim, through probing questions and responsive feedback, is to get the student to analyze his own performance and progress, to see what's going well and identify difficulties, and to replan if necessary.

In addition to information acquired directly from the student, you will need to talk to the resources with whom the student is working. While you cannot follow up on every resource visit the student makes, you should contact at least a sample of those resources the student visits for Orientations. You will want to touch base with those resources helping students develop projects at least three times:

- once before approving the student's Project Plan to make sure the resource has seen it, understands what the student hopes to do and learn by working with him, and agrees to evaluate the student's work (if designated as an evaluator on some goals and indicators);

- at least once in the course of the project to assess the student's progress toward his goals and identify any problems he may be encountering; and

- when the project is completed to obtain the resource's evaluation of student performance and products, as well as to share with the resource your evaluation of what the student learned from the experience and to thank him for his assistance.

If the student is enrolled in tutorials or workshops conducted by EBCE staff, you should also be receiving information on his participation and progress from the Skills Specialist, tutor, or workshop leader, in the form of written Progress Reports (on page 203), at least monthly, or more frequently if the student is having problems. You should, in any case, query the student about what he's doing in tutorials, workshops, or courses he is taking so you are aware of any problems he is having or needs for special assistance. You may then need to meet with the Skills Specialist, tutor, or instructor, as appropriate to clarify the problems and identify workable solutions.

A number of forms have been developed to help you keep track of and record students' progress. These are grouped together under the heading "Progress Monitoring Forms" and described individually in Appendix 2.

Some General Principles

Before discussing specific areas of progress monitoring, it may be worthwhile to reiterate some general principles.

Your goal with all students is to build their confidence in their own abilities. Whenever possible, your written and verbal feedback to students should begin with and emphasize what they have done well, or at least how they have shown improvement. (*Use positive reinforcement.*)

That is not to suggest that you should ignore deficiencies in their performance or products. It is essential that you help the student gain a realistic assessment of his own strengths and needs for improvement, and develop the habit of evaluating the quality of his own work. To do so, shortcomings should be discussed in relation to standards of quality and/or consequences -- the effects of his behavior on himself or others -- and ways of improving performance should be identified. (*Criticism should be constructive.*)

If the student does something well, but doesn't hear your praise for a month, he may think you didn't notice, don't care, or that, in fact, he did poorly. Likewise, if he does something poorly, but you don't mention it for several weeks, he may presume either that he can "snow" you or that such work or behavior is considered acceptable. The student who arranges to visit a

Resource Person, then fails to show up without calling in advance to cancel or change the appointment, is a case in point. If you fail to follow up with resources, to monitor student performance, or to advise the student immediately that such behavior is unacceptable, the student may continue the practice and alienate several resources which other students need. (*For it to be effective, qualitative feedback -- praise or criticism -- should be immediate.*)

Your goal is to help students learn to understand and, if possible, solve their own problems. This can be difficult. As you identify shortcomings in behavior and performance, and probe with the student for reasons and solutions, you will find that students do, in fact, have real problems in their personal lives that are affecting what they do in school. Far West School staff found student performance and behavior suffered because of a variety of other problems -- from backstrain due to wearing platform shoes, to an undiagnosed need for eyeglasses; from upset over parents' impending divorce, to physical beating at home; from lack of friends, to an unplanned pregnancy. As a Learning Coordinator, working closely with 20 to 30 students, you will find that you are learning much more about students' personal lives and problems than you ever did as a classroom teacher or as a counselor with a 300-student caseload. You cannot simply turn your back and pretend the student's problems don't exist. And how you handle them may well affect not only the student's high school education, but his whole orientation toward the future. You should not simply commiserate with the student about how difficult life is or suggest that poor performance or unacceptable behavior is now acceptable because you understand he has a problem. You should help the student clarify for himself the nature and causes of his problem, and to seek possible solutions. While you should not try to deal with problems beyond your professional competence, you should help the student identify qualified professional resources he can consult for assistance.

Monitoring Field Experiences and Progress on Projects

Just because the student has developed a detailed project does not mean that the plan is realistic, that the student possesses the skills and discipline needed to carry it out, or that your colleagues in the community -- the Resource Persons and Organizations with whom the student has chosen to work -- understand what the student intends to learn and are ready to help him learn it. Once plans are drafted, your task shifts to trouble-shooting to make certain that the student is actively engaged in planned activities and making progress toward the goals he set for himself.

In your weekly conferences with the student, you should discuss what and how he is doing in specific terms. Compare his Weekly Activity Schedule for the preceding week with his Student Activity Report (page 197).* Did he have a full week of school activities planned (25 to 30 hours of work)? Did he report a full week of activities? How much time did he report on project activities, including resource visits? Is it enough? Did he have appointments to meet with resources, either for initial Orientations or to continue work on a project? Did he keep these appointments? How did the meetings go?

Review the student's Project Sketches prepared before initial Orientations with resources. Did the Orientation meeting go as he expected? Was he able to get answers to his questions posed on the Sketch? Did the visit prompt other questions? Has he decided whether he wants to pursue a project in the career or subject field, and whether he wants to work further with the particular resource visited? Has he communicated his intentions to the resource?

Review the student's Project Plans. Are they complete or do they need more work? Did he meet with a resource or accomplish other work on the project in the preceding week? Is his work going as planned? Is he satisfied with his choice of resources? Is he having any difficulties in his relationships with resources? According to his Project Plan, should he have completed any tasks or products in the preceding week? Did he? Is he pacing his work so that he will complete it by the deadline agreed to in the Plan? Have his interests changed as he has gotten further into the project? Should some of his goals and indicators be revised? If they are, will it affect the kind or amount of credit the student can receive when the project is completed?

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* At the end of each week the student should complete a Student Activity Report listing resources visited and other program activities engaged in, including time spent on each.

These are some of the kinds of questions you should be pursuing with the student on a regular basis. You may also learn answers to some of these items from reviewing products submitted by the student or from his participation in advisory group meetings. You might also check with the appropriate Package Coordinator if the student has sought his advice in developing the Project Plan.

If it appears that the student has had or is having a problem in working with a particular resource, you should contact the Resource Person (RP) or Resource Organization (RO) Coordinator to gather more information. It's important that you stay in touch with the resources students have chosen to help them work on projects. As mentioned above, you should phone or visit them at least three times in the course of the project, and more frequently if your discussions with the student indicate possible problems. The Resource Contact Report -- Student Assessment form (page 201) was developed to help you record your findings from contacts with resources about the activities of a particular student.

In your discussions with the student and the resources he is working with, you are trying to assure that the student is engaged in worthwhile activities leading to the accomplishment of goals he has set for himself. To do this, you should prod the student to examine his own performance and progress toward goals, identify and clarify the source of any difficulties he is encountering, and decide for himself how best to solve the problems. The examples below illustrate the kinds of difficulties students may encounter in working with resources and completing projects.

* * *

> The student is interested in finding out how to start a small business. He identifies two RPs who might be able to help him, studies the Resource Guides, outlines some of his questions on a Project Sketch, makes appointments and goes for Orientations. He reports back to you that one of the resources said he was not available at the present time and the other said he was so busy he couldn't spend much time with the student. The student wants to drop the project because he can't find a resource to work with him, but doesn't know what else he might do instead. How do you

advise him? Well, first you have to make sure you know what really happened. The resources the student selected may well have had other pressing commitments at the moment and been unable to work with students for several weeks. If the student simply postpones the project and works on something else in the meantime, he may still be able to do it, if not this term then the next. Or he could complete a Request for Resource (page 195) and talk with the Resource Analyst about recruiting another resource that could help him. He might also work himself on recruiting another RP.

It is equally possible, however, that the resources said they didn't have the time to work with him because of the way he conducted himself during Orientations. Maybe he did not adequately explain what he wanted to do and what kind of help he wanted. Maybe he was expecting them to tell him what to do, and they were expecting him to be better prepared. Possibly his dress, grooming, or language were such that they did not want him around their place of business. While resources should not expect students to appear in business clothes they may not be able to afford, they do have a right to expect them to be presentable and civil.

So before you can advise the student, you must talk with him and the resources he visited to get more information. Then you can involve him in getting at the roots of his problems, identifying what he can and wants to do about it, and deciding on a course of action -- to postpone the project, look for other resources, examine his own actions, and seek to improve his conduct as appropriate with the same resources or with others he may visit. It's his decision. Your job is to help him understand the problem, the alternatives, and the consequences.

* * *

The student has planned a project for biology credit working with medical laboratory technicians at one of the program's Resource Organizations. Once students decide to go beyond the Orientation stage, the laboratory requires that they agree to a schedule of two afternoons a week for six weeks so that they can rotate through the different departments learning about laboratory tests of blood and tissue samples. For the focus of his project the student has chosen to examine the effects of his diet on his own health and fitness. To pursue the schedule of learning activities designed by the RO Coordinator as well as his own interest, the student must refer to a complex text entitled Clinical Diagnosis by Laboratory Methods. After two weeks of steady effort by the student, you suddenly learn that he has started missing his scheduled appointments at the lab.

Again you need to probe with the student and the RO Coordinator to discover the root of the problem. The student might be having trouble understanding the text assignments that go along with his learning experiences at the laboratory and need the help of a tutor. Or maybe he had an argument with one of the lab technicians and is embarrassed to return. He might, on the other hand, be having some trouble at home. Or perhaps he has planned so many program activities that he simply cannot meet all of his commitments. Only when the problem has been clarified can a workable solution be found.

* * *

The student is working with the news director at the local radio station on a project to explore careers in journalism, learn how decisions are made about what gets reported by the media, and learn to write news articles. By now the student should have turned in two articles, but hasn't done so. You find that he has been spending most of his time with the station's electronics engineer because he is interested in taking the state exam for a third-class radio operator's license and needs to learn all he can about how the equipment operates. Should the student revise his original Project Plan, develop another, try to do both projects, or drop the first one? Neither you nor he can decide without additional information. Does the student have time to do both projects? Can he afford to drop the first one which was designed to earn required English credit? How would the news director feel if the student simply dropped the first project? Does the engineer understand what the student wants to accomplish? Is he willing to continue working with him? You, and the student, need to find out more about the consequences of alternative courses of action before he can make an informed decision.

* * *

The student recruited his own resource at the Children's Zoo and has been working on a Project Plan to study animal behavior. After a couple of weeks, you find that he really hasn't firmed up his Plan and wants to drop the whole idea. On probing, you discover that all he gets to do at the site is clean animal cages; he's being used by the resource as a part-time worker, learning little and not getting paid. This is clearly against program policy and must be halted. But perhaps it's because the student did not adequately explain to the resource the purpose of EBCE and what he specifically wanted to do. Before agreeing with the student that the project should be dropped, you or the Resource Analyst should contact the resource and find out if he understands the program and is willing to work with students as a Resource Person rather than a work supervisor. If he is willing to serve as an RP, the Resource Analyst should conduct an interview and develop a Resource Guide, and you should work with the student and resource to plan acceptable project goals and activities. You should then continue to monitor the situation to assure that the student is engaged in learning activities, rather than unpaid work, at the site.

* * *

While these examples illustrate potential problems you might encounter in the process of monitoring students' activities, you should not expect to find only difficulties and crises. You will in the course of your regular discussions with students and resources frequently learn about highly successful student/resource experiences and substantial student progress and growth. Don't keep these things to yourself. Tell the student when he is doing good work. Tell the resource when he is making or has made a real contribution to the student's learning. And share the successes you learn about with your fellow staff members so that they can use the information in working with their students.

Monitoring Other Program Activities

Though talking with students about their projects and experiences in the community is inevitably more interesting, you should not fail to monitor their work in other program activities. From reviewing the student's Activity Report at the end of each week, the Progress Reports you receive from the Skills Specialist or tutors, and from your weekly conferences with the student, you should be able to glean information necessary to judge whether the student is actively engaged in and making progress in his other program activities.

Is the student actively participating in required advisory group and project seminar meetings? If not, does he understand the purposes of these meetings and the consequences of not participating, that he is missing the opportunity to expand his knowledge and may be risking no credit or transfer out of the program?

If the student is taking an external course, you should be able to tell from his Activity Report whether he is attending classes. But don't leave it there; ask him what they are doing in the class, how he likes it, whether he is satisfied with his own participation and progress, and whether he is having problems with the coursework. If he has planned physical education activities, talk with him about what he is doing and, if necessary, check with someone to verify that he is doing what he planned. (See the previous discussion of the Physical Education Plan, page 34.) If he is taking a tutorial or workshop, or working independently with programmed materials, you should be receiving Progress Reports at least every two weeks from the Skills Specialist. You should review the reports carefully for information about the student's participation and progress toward stated objectives, and discuss with him what he is doing and learning through these activities and whether he is encountering any difficulties in the process. You should be alert to any opportunities to help the student integrate his supplementary activities with his project activities.

Students have problems with supplementary activities for much the same kinds of reasons they encounter difficulty working with resources and completing projects. If you find that a student's attendance, participation, or progress in a tutorial, workshop, course, or independent study is falling off, it may be because the activity is not meeting the student's perceived interests or needs; either the staff person or student, or both, have unrealistic expectations of the other; the student is in over his head and needs additional assistance; there is a personality conflict; or the student hasn't the time or energy for the activity due to an overextended program or personal problems. Your course of action should be similar to what it would be if the student were having problems with his projects or field experiences. That is, you should meet with the student and the person with whom he is working (Skills Specialist, tutor, or instructor) to get the facts, clarify the problem, identify alternatives, and help the student make informed decisions about what to do. Depending on the circumstances, appropriate action might include dropping or postponing the activity, substituting a more appropriate one, altering the objectives toward which the student is working or the strategy being employed, making additional staff help available to the student, and leading him to examine his own performance and resolve to work toward improvement in participation and progress.

Monitoring Progress in Terms of Program Goals and Requirements

In addition to monitoring the student's progress in specific activities he helped plan, you will want to step back periodically and review the student's competence, growth, and needs in the core goal areas of EBCE: in basic skills (reading, writing, oral communications, and quantitative skills), in career development (learning about oneself and about careers, developing the decision-making skills required to make informed choices, and acquiring the career entrance skills necessary to pursue goals), and in life skills (problem-solving, interpersonal, and inquiry skills).

Growth in these areas should result over time from the cumulative set of experiences and activities the student is engaged in. You shouldn't expect significant improvement in interpersonal skills, for example, as the result of working with a single Resource Person in the community. You should expect to observe growth over time, however, as the result of the student's working with a variety of resources on different projects, explaining his activities and upholding his points of view in advisory group meetings, and working with you and other staff members in planning his activities, evaluating his own performance, and learning to accept the consequences of his decisions and actions. The same holds true of student growth in problem-solving, inquiry, self-knowledge, career awareness, and other core curriculum areas. In the course of monitoring student progress you will need to be continually alert for indicators of the student's strengths, weaknesses, and motivation to improve in these areas.

Since learning requires both motivation and opportunity, you may need to devise strategies to help students see the need to expand their knowledge or skills, as well as offering them the resources they need to do so. For example, you find that the student is a creative thinker and writer, but spells poorly. Since the student will spell the same word differently on the same page, you believe that he doesn't even try for accuracy. You talk with him, recommend he use a dictionary or other spelling aid, turn back his papers for him to correct, and still get no improvement in performance on subsequent papers. He just doesn't see the need to bother to spell correctly.

How do you get him motivated? There is obviously no single answer which will work with every student. The best advice is to seek opportunities for the student to experience the practical utility or consequences of his skill or ineptitude. The student in the above example happened to be working on a project with a sportswriter for a radio news program. Part of his plans called for writing articles about high school sports events. His Learning Coordinator used the opportunity to call the Resource Person, explain the student's deficiency in spelling, and ask the resource to take the next article the student turned in and read it back to him aloud, as written, misspellings and all. After a few such experiences, the student began to pay more attention to spelling correctly because he needed to, in order to communicate what he wanted to say in writing. The same strategy might not work with another student. All you can do is try, first one thing then another, hoping one will click sooner or later. Once the student perceives the need to expand his knowledge or skills, you can help him choose appropriate learning resources and activities and get to work.

The Progress Monitoring Worksheet (page 205) was designed to help you record and keep track of your assessment of student strengths and needs in basic skills, life skills, and career development; specific observations or indicators of the student's attitude, knowledge, and skills; and the actions you decide to take in working with the student. It is desirable to maintain some such record in case you are absent and a substitute Learning Coordinator needs to fill in. To do an effective job, the substitute needs the benefit of your observations and conclusions. Whatever you put on record, however, you should discuss with the student. Student files are open to students and their parents. There should be nothing on file that would surprise or upset the student.

Guidelines and methods for monitoring student progress -- first in terms of EBCE competence requirements, then in terms of other program goals -- are discussed in detail below. Keep in mind, however, that assessing the student's needs and growth in these areas is not a separate task, but an integral part of monitoring his project and other program activities.

EBCE Competence Requirements

In order to graduate, all students should be required to demonstrate minimum levels of competence in several core areas of EBCE. The full set of requirements is specified in Exhibit 1, page 15. Several forms (questionnaires, checklists, and rating instruments) have been developed to help you rate and record student competence in these areas. (See pages 147 to 164.)* Methods for monitoring and certifying student competences are discussed below.

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* These forms are also used in entry assessment.

Reading

Requirement: The student must demonstrate that he can read, comprehend, and interpret materials an adult encounters in daily living (e.g., newspapers, magazines, income tax instructions, credit contracts, instructions for operating or maintaining equipment or household appliances, and job descriptions).

The Reading Checklist (page 147) is used to certify observed reading competence. To meet the requirement, the student must satisfy four of the five indicators on the checklist for three of the six kinds of material. Every student project should include related reading. By reviewing project products, or asking the student questions after he has read the material, you should be able to determine whether he has understood what he read. If his project required him to read and use materials at the resource site, you should ask the RP with whom the student is working for his evaluation of the student's skills and his specific observations or indicators. If the student is working with a tutor or other instructor in supplementary activities requiring reading, that person may be asked to certify the student's competence in dealing with some kinds of material. You can also learn about the student's reading ability by noting the kinds of questions he asks after reading Resource Guides, internal memos or bulletins, and instructions on forms.

Quantitative Skills

Requirement: The student must show that he can employ basic computational skills in the context of everyday tasks and problems encountered by adults, such as computing interest, making change, balancing a checkbook against a bank statement, computing miles driven per gallon of gasoline, constructing a budget, and computing income tax.

To meet the requirement, the student must perform at least six tasks, such as balancing a checkbook, computing interest on a loan, or making change, which demonstrate his competency in all 11 quantitative operations listed on the Quantitative Skills Checklist (page 151). If the student's chosen projects and supplementary activities do not provide natural contexts for application and assessment of his quantitative skills, it may be necessary to ask the student to select other means or settings for demonstrating his competence.

Oral Communications

> Requirement: The student must demonstrate the ability to listen and communicate effectively in work situations, showing that he can organize and present ideas or solutions to problems, give informative answers to questions, comprehend and give directions, and listen effectively.

The Oral Communications Rating form (page 149) lists seven kinds of student actions which are indicators of the student's ability to express himself orally and listen effectively. You should have opportunities to observe whether he can satisfactorily perform these tasks in the course of his daily activities in the program. Each time you certify an action successfully executed, the student earns a point on the rating form. To meet the requirement, he must earn 10 of a possible 15 points.

Writing

> Requirement: The student must demonstrate the ability to write an acceptable prose report or essay of at least 250 words. The student's writing will be judged for sentence structure, spelling, grammatical correctness, punctuation, clarity, and organization.

New students are asked to write a 250-word essay during their first two weeks in the program. (See Entry Assessment.) The essay is evaluated by either the Skills Specialist or the student's Learning Coordinator using the Writing Scale (page 153). To meet the requirement, the student must receive a satisfactory rating on this first essay, written under controlled conditions to assure it is his own work, or subsequently receive three consecutive satisfactory ratings on written products he completes in the course of his projects. (You may allow him the additional option of endeavoring to meet the requirement by producing another essay under controlled conditions.) As long as the student has not yet met the requirement, you should assure that he plans to complete at least one written product of 250 words or more each term. This should not be an additional requirement, but a natural outgrowth of his projects.

Career Awareness

Requirement: The student must demonstrate that he has acquired substantial information about an average of two jobs in each of three career fields for each year he is in the EBCE program. The information acquired about each job should include:

1. the roles and functions of the employee and the relation of the job to other jobs;
2. how one qualifies for entry and advancement (education, experience, aptitudes) and possible routes of entry and advancement in the career;
3. the working conditions associated with the job, including physical environment and social milieux, hours of work, how the job affects the worker's lifestyle, and other conditions;
4. the monetary, psychological, and other rewards which workers receive from the job;
5. the current and projected demands for workers in the field and opportunities for advancement and lateral movement within the career; and
6. a personal evaluation of the occupation in relation to his own interests, values, goals, and abilities, including positive and negative assessments and whether the assessment is likely to change.

Evidence of the student's acquisition of career information can be in the form of the Career Orientation Guide (page 207), the Job Information Questionnaire (page 155), a journal, a presentation to members of a student group, or any other means by which the student can display his knowledge to observers. As the student successfully demonstrates his knowledge of a job, through whatever method chosen, you certify his competence on the Career Information Checklist (page 159). Students should acquire and demonstrate their career knowledge in the natural course of completing projects using employer and community resources.

The intent of the requirement is that students acquire substantial and specific knowledge about particular jobs of their own choosing, and that they learn about some of the ways jobs are related to one another -- through similarities in the kind of work performed, the purpose of the work, the setting in which it is done, the education or training required, or the level of responsibility involved. The student may choose not only what particular jobs to explore but also how to designate the "career fields" in which those jobs fall, based on the relationship he sees between them. Thus while one student may explore six jobs in the "fields" of computer science, politics, and social work, the next may investigate six jobs in the "fields" of outdoor work, mechanical work, and working with animals. There is no particular purpose to be served by requiring students to work within someone else's system for categorizing careers. The available taxonomies of career families are many, each designed for different purposes. Since it is the student's own need for career information you want to serve, he should be allowed to select the fields of work he wants to explore in clarifying his own career goals. Your purpose in requiring that he look at different jobs in different fields is only to assure that he does encounter some variety in the process.

Career Decision-Making

Requirement: The student must show that he can apply principles of informed decision-making and planning in formulating post-high school career and educational goals.

In the process of helping students plan their programs and projects, evaluate their own progress and work, identify problems they are having, and decide what to do about them, you will have frequent opportunities to find out how well they can use the principles of informed decision-making listed on the Career Decision-Making Rating form (page 161). By the beginning of the student's last term in the program, you should ask him to explain, orally or in writing, his post-high school plans to you, and perhaps another person designated by the student -- a parent, Resource Person, other staff member, or friend. The Career Decision-Making Questionnaire offers a set of questions to which the student should be asked to respond. In his explanation and response to questions, the student should demonstrate that he has examined some alternative courses of action, looked at the possible and probable consequences of each, and identified the outcomes most desirable to him personally (that is, examined his own priorities and compared these with his options). If the student's information or rationale is judged inadequate, those evaluating his performance should help him develop a plan for acquiring more information or thinking things out more thoroughly during his last term. You may, in the end, judge the student's knowledge of decision-making principles to be satisfactory if he can at least detail what he will do in the coming year to clarify his career goals, and describe the kinds of information he needs before making decisions about his future.

* * *

Monitoring and certifying student progress towards meeting the EBCE competence requirements should not be a separate or time-consuming task, but an integral part of your other work with students. The job will be easier if you have copies of the checklists and rating forms, along with the Progress Monitoring Worksheet, in each student's current file. (We recommend that you keep these files in a separate three-ring binder for each student.) If you keep the program requirements in basic skills, career awareness, and career decision-making always in mind, you can take advantage of opportunities to help students plan appropriate activities to expand and demonstrate their knowledge and skills in the course of planning their projects and other activities.

As you observe student competences or needs, and especially as you review completed projects or other activities, you should record your observations on the appropriate forms. Because such record keeping is bound to fall behind occasionally, it is wise to plan for a midterm and end-of-term counseling session with each student in which you review his progress to date and assure that growth is documented. These intensive reviews of a student's program are discussed separately at the end of this chapter.

During orientation you will be able to assess the student's competences in some of the core goal areas. By the end of the student's first term in the program, you should have a fairly accurate fix on the student's abilities and needs. You should then review the checklists and rating forms. If you have not yet had the opportunity to observe the student's skills in any area, you should create the opportunity, if necessary. As you enter the next long-term planning phase, at the beginning of the student's second term, both you and he should know what competence requirements he still needs to work on.

As requirements are met by the student, you should so certify on the appropriate rating form, give a copy to the student, and place a copy in his permanent file. But don't treat the competence requirements as something to be gotten out of the way. Even if the student has met the minimal requirement, he may want to further expand his skills. And if he doesn't your job is to help him see the need for continued growth, by involving him in experiences where the practical utility of those skills is apparent.

Other Program Goals

While minimum competence requirements for students have been established only in the above goal areas, you will also want to monitor the student's progress in acquiring other skills he needs to be an independent learner, now and for the rest of his life. Program goals are stated in Appendix 1 for each of the following core skill areas. You should keep these in mind whether working with the student to plan his own goals and activities, monitor his progress, or evaluate his completed work.

Inquiry Skills

Your aim is that every student increase his ability to ask relevant and significant questions, organize information in ways that are useful, probe beneath the surface of words or events for causes and meanings, and apply what he has learned in new situations. You want to help students learn to apply higher cognitive processes. Whenever appropriate, you should challenge students to develop project goals that will cause them not simply to acquire information, but to use it in some significant way. Many students have little experience in interpreting, analyzing, or evaluating information. Their education has focused on learning and then repeating facts, definitions, or ideas without thinking seriously about them. Wherever you find the student is currently operating in the hierarchy of cognitive levels, you will want to challenge and help him expand his abilities. You will need to use a variety of instructional strategies including:

- explaining what it means to classify, generalize or evaluate;
- demonstrating ways of comparing and contrasting, defining, or analyzing;
- asking probing questions so that students are led through processes of thinking and analyzing without necessarily knowing what to call the mental operations; and

- involving students in practical experiences in the community which will require them to think through what they are observing, hearing, and trying to do.

If you are successful, you will observe the student's growth over time in his Project Plans, products, and contributions in advisory group meetings. You should record your initial assessments, instructional strategies, and observations of student growth on the Progress Monitoring Worksheet.

Problem-Solving Skills

Problem-solving involves applying basic skills and a variety of cognitive processes to define and clarify problems, use different sources and techniques of data gathering, and identify solutions that are both desirable and feasible. It obviously overlaps other skill areas. In monitoring student needs and progress, you will want to pay particular attention to how the student approaches problems and to his competence in identifying and applying solutions. Is he overwhelmed by even simple problems? Does he jump at any solution, or seek as much information as he can get and try to think things through? Does he know how to find sources of information? Does he seek information from appropriate people, government agencies, business or service organizations, as well as books or articles? Does he know how to find something in the library? Can he plan and conduct an interview to get the kinds of information he wants? Does he tend to look for and examine alternatives in arriving at solutions?

There is no one way to solve the diversity of social, personal, and scientific problems faced by people in today's world. Your aim should be to help the student expand his knowledge of and experience with various approaches and techniques so he will be able to deal effectively with problems as they arise. If one becomes a better problem-solver through guided practice in confronting real problems, EBCE offers an excellent context for students to expand their skills. Students will inevitably encounter problems in the course of planning their programs and projects, working with resources in the community, completing their products, and meeting their own deadlines. The learning process in EBCE offers you frequent opportunities to observe the student's problem-solving skills, identify needs, monitor growth, and provide necessary guidance. Remember, though, that necessary guidance means leading the student to evaluate for himself whether he has effectively defined his problem, identified and acquired information he needs, and thought through the alternatives before settling on a solution.

Decision-Making Skills

Decision-making is obviously closely related to problem-solving, perhaps distinguished only in terms of more intense personal involvement. Proposing solutions to problems, e.g. to mathematical, scientific, or social problems, does not necessarily imply a personal commitment to act on the proposed solution. Decision-making, while employing all the skills of problem-solving, requires in addition the ability to recognize when you are confronted with the need to make a decision, knowing what personal values and goals are involved, and accepting responsibility for decisions made. Like problem-solving, decision-making also involves identifying and acquiring needed information, examining alternatives, and anticipating consequences.

Talking with the student about decisions he makes in long-term planning or project planning, will help both of you learn how he makes decisions and how aware he is of his strategies. The student's responses to suggested alternatives (e.g., "Have you considered asking your RP what ways you might work on your writing skills in his business before you decide on your project goals? Have you considered how attainable your goals are and what could happen if they turn out to be too difficult?") will offer some clues as well as instruct.

Interpersonal Skills

The program goals for students in oral communications skills focus on being able to communicate and listen effectively in face-to-face interactions with others. In addition, EBCE students should expand their understanding of interpersonal behavior and their skills in dealing with others in either cooperative or conflict situations. As you work with the student individually, observe him in advisory group meetings, and monitor his experiences with Resource Persons in the community, you should note how he deals with others; whether he considers their needs, expectations and feelings in addition to his own; whether he is a leader, a follower, or both at appropriate times; whether he can work cooperatively with others to achieve goals he shares; whether he seeks to resolve or aggravate personal conflicts; and whether he possesses the insights and skills to do what he wants to do. Does he evaluate his own behavior and the behavior of others and seek to understand why people act as they do? Is he timid or uncomfortable about meeting strangers or working with others? Your goal, clearly, is not to make a shy student more outgoing, or a gregarious one more restrained. It is rather to help students acquire the insights and skills they need to work with others to achieve their own goals. As you observe a student's strengths or shortcomings in this area, you should lead him to evaluate his own behavior, identify what he wants to be able to do in working with others, what knowledge or skills he needs to acquire, and how best to go about it.

Far West School staff found that students themselves were frequently concerned about expanding their own confidence and abilities in dealing with others and would readily add growth in interpersonal skills to their project goals. Advisory groups and project seminars offer another excellent context for helping students expand their interpersonal skills. In sharing their community experiences and project activities with their group, students will mention problems they are having dealing with a particular resource. If you seize these opportunities to involve the entire group in a discussion to clarify the problem, seek underlying causes, and examine alternative solutions, they will learn more about interpersonal behavior as well as approaches to problem solving.

Career Entrance Skills

While EBCE focuses on assuring that students gain knowledge and experience to help them make informed career choices, it must also provide them opportunities to acquire specific knowledge and skills needed to pursue their chosen goals. Since the kind of information or skills needed will vary depending on the student's own aims, you will need to work with each student to identify specific learning goals. In general, students should know how to obtain information about educational or employment opportunities, how to write letters of application, complete application forms, conduct themselves in interviews, and prepare resumes.* These kinds of activities can become an integral part of some of the projects the student designs.

Students who have tentatively chosen a career goal should begin to acquire some of the specific skills and experience they need to qualify for entry to an occupational area or prerequisite educational or training program.

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* The Career Entrance Skills Checklist (page 221) may be used to record student progress in this area.

Students may incorporate such learning goals in their projects or supplementary activities as necessary. Their progress in this area is then monitored in terms of whether they satisfactorily complete the planned work.

Self-Development

Throughout everything else you do, you will be helping students gain insight into their own interests, abilities, values, and goals; understand that these may change with further education or experience; and increase their self-reliance and ability to function responsibly and independently in daily activities

By enabling the student to obtain direct experience, and thus see himself, in a variety of economic and social settings, EBCE greatly expands his opportunities to discover and test what kind of person he is and would like to be. To assure that students use these opportunities to maximum advantage, you must prod them to evaluate their experiences and their own reactions to them. In the process you will discover what the student knows about his interests, strengths, and limitations; what kinds of people he admires; and what he cares most about being and doing. The challenge then is to use this information to involve the student in new experiences to put him in contact with different people and situations, to broaden his insight, and further test his current interests, values and capabilities.

Your goal is not simply to help students "know themselves," but to help them become responsible, self-reliant, competent adults able to function and contribute to the best of their abilities in a complex society. You want them to learn how to plan activities and manage time and other resources to accomplish their goals, make and keep realistic commitments to others, follow through on planned activities seeking guidance or assistance as necessary, exercise self-discipline, evaluate their own behavior and performance, and accept responsibility for their own decisions and actions. Growth in these competences should be the cumulative result of the student's experiences in EBCE, not the outcome of a few specific learning activities. As you work with the student, you should keep these objectives in mind, note his strengths, limitations, and progress, and seek strategies and resources to help the student perceive his own shortcomings and expand his skills.

Midterm and End-of-Term Progress Reviews

It is essential that you meet with each student at least once around the middle of the term for a comprehensive review of his plans, program, and progress to date, to assure that any potential problems are identified and resolved before they get out of hand. It is easy, in your weekly meetings with students, to lose sight of the forest for the trees; for example, to forget to ask how one project is going because you are both concentrating on working out another. You also want to assure at this time that all planned activities are properly documented and that, if the student satisfactorily completes his plans, he will earn the kind and amount of credit he anticipates. It is too late, once a project is submitted for credit, to tell the student that his plan was inadequate. If it was, you should have known sooner and helped him revise it. A conscientious midterm review will protect both you and the student from undesirable tasks and consequences at the end of the term.

At the time of the review you should:

- Compare the student's Overview of Student Activities with his Long-Term Plan. Is the student actively engaged in activities that will enable him to pursue his credit and other goals for the term? Are all planned activities adequately documented and formally approved by you? If not, you and the student need another planning session to revise the Long-Term Plan or to develop acceptable plans for projects or other program activities.

- Review with the student each of his Project Plans and his progress in meeting his goals, indicators, and deadlines. Do his actual activities and goals coincide with his original Plan? If not, the Plan should be updated. Are the planned credits justified? If not, the student may need to add goals and indicators, or accept a lesser or different kind of credit. Is the student on target in meeting his own deadlines? If not, the deadlines should be revised or the student should plan to catch up. The Student Project Checklist (page 193) offers additional criteria for reviewing student's Project Plans and progress.

- Review with the student his planned supplementary activities and any Progress Reports received from the Skills Specialist, tutors, or workshop leaders. Are the plans adequate and complete? Is the student's participation and progress satisfactory? If not, you may need to meet with the Skills Specialist to discuss the problem(s).

- Review the student's Activity Reports for the preceeding weeks. Is the student engaged in a full-time program, i.e., 25 to 30 hours a week in planned learning activities? If not, is a part-time program acceptable within program and district policies? Is the student spending approximately 50% of his time in project activities, including approximately 30% of his time in planned experiences in the community (resource visits)? If not, is his participation in EBCE acceptable within program policies?

- Review the Progress Monitoring Worksheet and the checklists and rating forms for monitoring progress on EBCE competence requirements. Have all your observations been recorded? Is the student's progress satisfactory to him and to you? Do you need to arrange with the student ways for you to assess his competence in some area(s)?

- Discuss with the student his own feelings about his plans, activities, progress, and participation in the program. Does he have any problems in trying to pursue his plans and does he need more help? Is he satisfied with his own work? If not, what does he plan to do about it?

As you prepare for and conduct this conference with the student, you should use the Student Program Checklist (page 223) as a reference and as a tool for summarizing and reporting your findings and recommendations, if necessary, to the EBCE Program Director. Remember that deficiencies in student planning, participation, or progress should not lead mechanically to the determination that the student is not meant for EBCE or vice versa. If you catch the problems and work out acceptable solutions with the student early in the term, you can turn the situation into a valuable learning experience. If the student, however, is not committed to working with you to resolve such problems, you should assure that not only he, but his parents, understand the consequences (such as little or no credit, or transfer to a program more likely to meet the student's needs).

The primary purpose of the midterm review is to assure that the student is actively engaged and making progress in planned and approved learning activities, and to identify and resolve any problems related to his EBCE program. A similar comprehensive progress review should occur at the end of each term for two reasons:

- to assess progress in meeting district and EBCE competence requirements and update information on remaining student needs before you and he begin work on his Long-Term Plan for the next term, and

- to involve the student in evaluating his own progress and problems so that what he has learned from his experiences this term can be used for planning next term.

Reporting to Parents

A copy of the student's Long-Term Plan should be mailed to the student's parents within four weeks of the beginning of each term. If the student's Long-Term Plan is not complete by the fourth week of the term, the partial Plan will be sent with a short note explaining the student's progress toward making long-term plans.

A midterm progress report, in the form of a letter, may be sent to the parents any time during the semester if the Learning Coordinator thinks there is anything special of which the parent should be informed.

At the end of the semester, a copy of the student's Credit Assignment Summary (page 231) should be sent to the parents. Again, the Learning Coordinator may send a letter if there is other information he wants to communicate to the parents.

Parents should feel welcome to confer with you at any time, by telephone or in person. You should request a conference with parents any time you feel there is a need, but it is advisable to tell the student in advance that you plan to do so and invite him to be present.

Credit Assignment

Credit Assignment

How much credit should a student earn for what he has done or learned? How do you assess the quality of a student's work? These have always been difficult questions for educators, and are even more difficult in a program that encourages students to integrate their learning in ways that cut across tidy categories, and requires each student to participate in decisions about what he should learn, how he will go about learning it, and how he will demonstrate his success.

In order to plan and carry out their own learning programs and projects, students need to know, from you, in advance, how much and what kind of credit they will earn if they do what they plan. The first step in assigning credit, then, takes place when you approve the student's plans early in the term. If you and the student have done a thorough job of planning, he will know how much credit he will earn in what subjects if he accomplishes his goals, and what criteria will be used to judge whether his completed work is acceptable. Note that there are three separate, but related, questions to be addressed in assigning credit:

- You must determine what kind of credit (in what specific subject areas) should be received. Ideally, the kind of credit received should be related to the content of what is learned.
- You must decide the amount of credit (how many units) the student should receive. Ideally, the amount of credit should be related to the amount of work or demonstrated learning.
- You must assess the quality of the student's work (and award grades, if used in your program). Ideally, the quality of work should be judged in terms of performance standards used in the appropriate field.

What Kind of Credit Should Be Awarded?

Since students are allowed to learn what they want and need, their learning may or may not fit neatly into conventional course categories. Credit for completed work should be awarded in the most closely related subject or course area, by comparing the content of the project, tutorial, workshop, or external course with the content of courses offered within the district.* The most accurate subject heading should be chosen, within the allowable choices available. Your decisions will be influenced in part, however, by what kind of credit the student needs to graduate. Say he needs American government credit, executes a well-done study of local politics, includes related reading in his project, and participates in project seminars. You may have to choose between granting credit in the required subject of American government or in the elective subject of local government. Whatever the rules and regulations of your school or district, you will inevitably find such situations in which your conscience and professional ethics must be your guide.

You should not make such decisions lightly, nor try to stretch the imagination too far. If you award a student credit in psychology for a project involving the care of preschool children, you must be able to substantiate that he learned some basic concepts, theories, or principles of psychology in the process. Otherwise, the credits should be listed under a more appropriate course title, such as family living or child care, if you have the option of doing so. Such issues should be worked out with the student before you approve his Project Plan. To earn psychology credit, he must plan to learn something about the field of psychology, and then must demonstrate he has done so.†

Students should be allowed to earn credits in more than one subject area through a single project if such credits are justified. For example, a student planning to do a study on the effects of mass transit in his city and write an article on the subject may legitimately earn both urban studies and English credit for his efforts. To justify the English credit, however, there should be a clear indication that the student plans to expand rather than just exercise his writing skills. For example, he might plan to submit an early draft of the article to the Skills Specialist, then to rewrite and improve the article based on the criticism received. Just because the student writes, or reads, or gives a presentation on something does not, of itself, justify awarding English credit. Demonstrated growth in the subject or discipline should be your criterion.

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* Far West School staff could award credit only in those subjects listed in the district's computerized course listing. Thus, while the content of a student's project might have fallen more accurately under the subject heading of educational psychology, credit had to be awarded under the more general heading of psychology because the district did not offer the more specialized course.

† On occasion, earned credits for projects will differ in amount or kind from planned credits. This should occur rarely if you have been monitoring the student's progress and insisting that he update his plans as necessary to coincide with changes in his goals or activities.

You will, on occasion, discover that a student wants to do a project for the sole purpose of investigating careers -- maybe to compare fields, or look at a variety of jobs within a single field. For example, a student plans to visit several resources in different kinds of careers for Orientations, to evaluate his own interests in those careers, to choose two to explore in more detail, and to analyze what he has learned about his own interests, abilities, and work values through his experiences. It is possible that his work could be converted to a social science project, say focusing on the sociology of work. Or perhaps the student could be pressed to seek some subject matter knowledge or skills related to his work with one or more of the resources. You should explore these options with the student, but if he really wants simply to explore the careers and learn more about himself, he should be able to do so and to earn elective credit in the subject of career exploration or career development. (You may have to obtain approval to list such subjects on transcripts, if no course of that nature is offered in your school or district.)

You will also find that some of your students desire the opportunity to earn work experience credit for part-time jobs, just as other high school students may do. In addition to observing state rules and regulations governing work experience education, Far West staff added a requirement that students plan projects identifying what they hoped to learn through their experience and how their performance would be evaluated. Sometimes students were able to recruit their on-the-job supervisor or a co-worker to also serve as a Resource Person for a project designed to broaden the student's knowledge or skills in the field beyond that required for the particular work-experience job. If the student developed an acceptable Project Plan, including work with resources and learning goals in addition to those related to his paid work experience, he could then earn credits in an appropriate course area as well.

How Much Credit Should Be Awarded?

Determining the amount of credit to be awarded for satisfactory completion of a project or other learning activity is a quantity assessment that should be related to the amount of work or learning involved. The amount of credit to be earned should, of course, be dealt with when the project or other plan is developed and approved. The student should know clearly what is expected of him and what progress he will make toward graduation through the planned work. So that such decisions are not totally arbitrary, guidelines or yardsticks for determining amount of credit should be decided in advance, should be reasonably equitable -- recognizing that students differ in interests and abilities -- and should require amounts of work or learning comparable to what would be expected of students for the same amount of credit earned through regular coursework in your school or district.*

Credit assignment criteria should also be performance-based, rather than time-based. Students should be required to demonstrate that they have done something or learned something, rather than simply put in time. With performance-based standards, students can work toward learning goals and objectives at their own pace, acquiring some knowledge or skills and moving on to more difficult materials or learning tasks without being forced to wait for others, or taking more time as necessary to master something without being billed a failure.

Establishing credit assignment standards meeting the above criteria is clearly no easy matter. In a single subject area such as government, EBCE students will each be endeavoring to learn different things, will be working with different resources in the community and reading materials appropriate to the focus of their own project, will set their own performance objectives, and will choose different methods of demonstrating what they have learned (written products, oral presentations, performance of specific tasks to be judged by the resource, photographic essays, and so forth). Therefore, it is neither desirable nor feasible to specify in advance what every student should know when he is finished with his project. What you can do, however, is to specify the kinds of things that students should learn about or learn how to do. The project planning packages offer such guidelines. (If you have not already done so, you should study the Project Planning Packages and read Package Development, which describes their purpose and use in greater detail.)

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* Note that the emphasis is on comparability in amount of work or demonstrated learning required as compared with coursework in the subject, not on identical content. EBCE students will learn different kinds of things from that learned by a student taking a course; your task is to assure that they are learning at least as much. If you don't know what is usually expected of students in a particular kind of course, you may have to consult your colleagues as well as high school texts in the field.

Credit for Projects

The package goals in each of the Far West project planning packages offer yardsticks for determining what a student's project should include to warrant 5 EBCE credits in the discipline (comparable to a semester's coursework).* For example, the guidelines in the Social Science Package require that students developing projects, for social science credit, include in their planned goals, indicators, and activities:

- basic skills: effective use of at least one method of acquiring and one method of communicating information;
- application of problem-solving skills in the investigation of a significant problem in the career/subject field under study;
- career development: acquisition of reasonably extensive information about two careers in the field and an evaluation of those careers against the student's own interests, values, goals, and abilities; or acquisition of some specific career entrance skills; and
- content goals: understanding (ability to use, not just define) at least five major concepts, ideas, skills, or techniques appropriate to the subject area in which the student desires to earn credit.

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* Package goal checklists provide handy tools for use in reviewing a project plan to assure that it meets the minimum requirements.

If you study them, you will notice that the package goals offer only broad guidelines or yardsticks for relating the amount of work or learning in a project to amount of credit. They are purposely broad so that students can choose the specific subject of their study, select their own resources, and specify their own goals and methods for demonstrating what they have learned. They offer you considerable leeway in helping students work out project plans which are realistic in terms of their current knowledge, background, and abilities in the field of study. They do not, however, relieve you of having to make difficult judgments, drawing on your own professional experience and conscience.

A few of the problems you are likely to face in determining how much credit is warranted for satisfactory completion of a student project are illustrated below.

How do you determine what constitutes satisfactory completion? This is partly a question of quality assessment standards and judgments which are discussed below. It is introduced here because it is basic to determining whether to award credit at all. The principle employed in EBCE is that students should receive credits only for satisfactorily completed work. If the student submits a completed project that is judged unacceptable, he doesn't receive credits with an unacceptable or failing grade on his record. He simply doesn't receive credit yet. You provide him with feedback -- what is wrong with his work and what he must do to bring it up to acceptable standards. When he does the additional work at an acceptable level, he receives the appropriate credits, in the appropriate subject(s). But how do you determine what constitutes acceptable work? You have to consider both what the individual is capable of and what the community, the school district, and your colleagues in education expect.

The package goals demand that the student demonstrate, through his products or performance, that he understands and can use some reasonably complex concepts or methods appropriate to the field of study. But there will be students who, because of no previous background in the subject, limited reading skills, or limited cognitive skills, will not be able in the course of a term to go beyond acquiring knowledge of some simple facts and terms, though they work as hard as the students who are dealing with more difficult content in a more complex way. You don't want to set standards so low that capable students are not challenged, nor so high that struggling students are frustrated and give up. There is no simple formula for solving such dilemmas; we can only offer some suggestions of things to consider.

The goals in Far West's project planning packages (or other yardsticks you develop for determining amount of credit) are tools for helping students develop project plans. For example, if you are using the Social Science package goals to help a student plan a project to earn government credit, do not approve the plan until the student has included: methods of acquiring and communicating information; the study of a problem; learning about two careers sufficiently well to evaluate them against his own interests, goals, and abilities; and learning about five concepts, principles, or techniques in the field. If you really do not think the student can handle concepts or methods at the level described, then help him identify more basic ideas, terms, or facts he will attempt to master. Challenge the student to identify ways he will use the knowledge acquired. You are not interested in his learning definitions and repeating them back to you.

In addition to meeting package goals, you should assure that students' Project Plans include significant involvement with a resource in the community, visits beyond the Orientation level; related reading, however simple, unless none can be found; the completion of at least one tangible product; and participation in the appropriate project seminar.

Finally, before approving the student's plan, or completed work, for a semester's credit in the subject, ask yourself whether the student's work and amount of learning is roughly comparable to what would be expected of him in a course.

If a student plans a more extensive project to earn credit in more than one subject area (say in history and English, or biology and urban studies), for 10 credits instead of 5, you may need to use more than one set of package goals to evaluate the student's Project Plan (as well as require the student to participate in both project seminars, if different disciplines are involved). As a general guideline, you should assure that students planning to earn double the credit will also accomplish double the work or learning. If a student cannot cope with projects the size of those described (comparable to a semester's coursework), you may need to help him plan two or more smaller projects, or plan his project so that it will be done in phases, accomplishing some work before other work is started. In such cases, the set of projects or activities should meet the appropriate package goals before plans are approved.

If the student is planning a project in a field where no package goals are appropriate, you will have to extrapolate requirements for what should be included in an acceptable plan for the credit desired. Drawing on package goals, in general you should require two basic skills activities, application of problem-solving or other life skills in practical situations, learning about careers or acquiring specific career entrance skills, and learning some major concepts or techniques used in the field.

In approving plans and assigning credit, it is advisable to use amount of work as a double-check mechanism to assure that your standards are fair. For a semester's credit in a subject area, will the student be required to engage in roughly as much productive work as he would in a semester's course? You desire, of course, that it not be significantly harder, nor considerably easier, to earn credit for a high school diploma through EBCE than through taking classes. While education, and credit awarded for it, should not be strictly time-based, students should be expected to devote time and energy to expansion of their knowledge and skills. And hard work by a student to achieve learning goals, though not fully accomplished, also deserves recognition.

Package goals offer you and students some guidelines for determining how much credit a project is worth. But they must be used thoughtfully, not mechanically, in helping students develop projects tailored to their own interests and abilities, yielding growth in knowledge and skills worthy of credit toward a high school diploma.

Credit for Supplementary Learning Activities

Criteria for earning credit for a tutorial, workshop, external course, or other activities (such as an individually-planned activity for physical education) should be worked out at the time the activity is planned so the student clearly understands what is expected.

At Far West School, credit for satisfactory completion of external courses was usually identical to that offered by the instructional agency, or computed on the basis of time spent in class. That is, for completion of a 5 semester unit course at another high school, the student would receive 5 EBCE credits. For completion of a Parks and Recreation Department course in making metal jewelry, meeting three hours a week for the equivalent of a semester, the student would receive 3 EBCE credits in jewelry-making.* Because of heavy homework of lab assignments, college courses taken for high school credit should be judged individually. If they exceed the requirements of a typical high school course in the same subject, the student should earn more than the usual number of high school credits. (You will need to know your district's position on awarding high school credit for college courses.)

Credit for physical education at Far West School was awarded on the basis of time, comparable to time spent in physical education classes. Thus, verified physical activity averaging 200 minutes a week for a semester warranted 5 EBCE credits, a semester's course credit.

Credit criteria for small-group tutorials and workshops in areas involving skills development were worked out by consulting teachers and texts in the subjects to identify what kinds of things students should be expected to learn to be said to have satisfactorily completed French I or algebra I or basic math. Whenever possible, even though performance standards were set for all students enrolled in the workshop, students were given some options for choosing which objectives they would focus on and how they would demonstrate what they had learned. Rather than repeat examples here, we recommend that you review the sample workshop descriptions in Supplementary Curriculum.

Credit criteria for individualized tutorials, designed to meet the personal needs of a student, are more difficult to specify. Say a student requests help with writing skills, and after diagnosing his weakness the Skills Specialist and he work out specific objectives for improvement -- for example, to expand his vocabulary by 300 words, and to be able to produce a 500-word essay with accurate punctuation and spelling, with no sentence fragments, appropriate word choice, and proper paragraphing. To determine how much credit the student should earn upon achieving the objectives must involve some estimation of how much work will be required. If you think the student can accomplish the objectives in 15 hours, you shouldn't plan to award him a whole semester's credit in English (5 EBCE credits). For developing credit guidelines, Far West borrowed, from the continuation schools in Oakland, the formula that 15 hours of productive work warrants 1 credit.* Once objectives are worked out with the student, the Skills Specialist then estimates how much work the student will have to devote to improve his skills to the desired level, and uses that estimate to identify how much credit will be earned when the objectives are achieved. While this method should be explained to the student, he should understand that he will earn credit not just for putting in hours (which may result in dallying and false claims of work), but only when the objectives have been met. He should also understand that by working hard he may be able to meet the objectives in somewhat less time than was estimated, but will still earn the credits agreed upon.

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* If the course were included as part of a project, requiring additional work with a Resource Person, the student might plan to earn additional credits equivalent to a semester's course.

Assessing the Quality of Student Work

Evaluating the quality of a student's work and advising him what he has done well and how he can further improve his knowledge, skills, and products is an essential part of the instructional process. Helping students learn how to identify standards of quality, evaluate their own work, and recognize their own strengths and needs for improvement is critical to their becoming independent learners.

As their educational guide or mentor, you need to provide specific verbal recognition (and criticism) to students regarding their work, so they can learn from their successes and mistakes. As a teacher, a paid evaluator of student performance, you also need to be able to provide honest evaluations of student work and potential to employers or schools to which the student has applied for employment or admission.

For the latter reason, you may be forced into assigning grades to student work; for this reason, we have used a contingency record-keeping system so that we can convert quality assessments of student work to letter grades, if requested to do so by a specific employer or college. See, for example, the

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* 10 EBCE credits equal 1 Carnegie unit.

Project Summary Report (page 225) and the Summary Progress Report (page 229). The quality assessments of Acceptable, Very Good, and Outstanding convert to the letter grades C, B, and A respectively. No credit is assigned if work is considered less than acceptable. At Far West School, student credit was listed on transcripts followed by the symbol P, for "passing." When queried by a college or employer, the response that P meant at least average, or C-level, work usually sufficed. Only occasionally was it necessary to respond whether the P represented specifically C, B, or A work.

Whenever you assess the quality of student work and discuss it with him, your feedback should be specific, detailed, and in the form of whole thoughts or sentences. The use of single words or letters is of value primarily to those looking for ways to screen masses of applications without confronting masses of applicants. But your aim is to help the student learn from his efforts, take pride in what he can do well, and find out where his work needs improvement.

In assessing quality and giving feedback to the student, you must bear in mind two concerns. You do want to recognize the student's effort, progress, and demonstrated learning. You also want him to understand, and hopefully see for himself, how his work compares with generally accepted standards of quality in the particular field of endeavor, so that he can take pride in what he has done well and know what he must learn to do better if he hopes to be "good" at something.

The formal, recorded assessment of the quality of student work should be made in relation to the standards of craftsmanship in the field. In deciding whether a completed project and product is acceptable for credit in the first place or should be turned back for more work, you will want to consider such factors as:

- whether the student accomplished most of his goals and indicators, and at least partially accomplished others (perfection is not required);
- whether his Resource Person(s) or other evaluators consider his work satisfactory;
- whether the student truly put in significant effort on the project and product, warranting the amount of credit requested;
- whether the student's work shows growth or progress over previous work, or some backsliding; and

- whether the student, in your opinion, did what he was capable of doing in the time available, or took the easy way out (for example, slapping a paper together in three days and then requesting a semester's credit).

Since your aim is to challenge each student to develop his knowledge and skills to the limits of his potential, you may well accept work from some students that you wouldn't accept from others, or turn work back to some students for further revision even though the product is as good as some others you have received. Your decisions will be influenced by what you know about the individual student and his work.

But once you've determined that a piece of work is at least acceptable and that you should proceed with the assignment of credit and a final quality assessment, you must consider the work against standards of quality in the field. If you are uncertain what those standards are (what constitutes technically good photography; how fast a good typist should type with how few errors; how you tell a good job of welding from a poor one; what the standards are for good scholarship and reporting in academic, social, or scientific research), you should be sure that someone else -- another staff member or a Resource Person -- with some technical expertise will be involved in evaluating the student's work.

If a student puts in considerable effort, completes a project for psychology credit, even demonstrates in discussions a grasp of some of the basic concepts in the field, but turns in a study report that is barely coherent, does not cite sources for statements of fact or ideas that are clearly not his own, fails to support arguments with evidence, and contains numerous errors in spelling and punctuation, you have a problem. Even if the work is better than the student has ever done before, if you give him an "Outstanding" rating (an A, if you are asked), you are telling him and perhaps some university that the student does excellent work in an academic subject area and that he understands and demonstrates competence (or at least solid potential) in the craft of scholarship.

Or say the student is working on a project with a photographer for some months, and finally turns in a photographic journal depicting a day in the life of an EBCE student supposedly demonstrating mastery of basic techniques of photographic composition, camera work, and processing. The student's

Resource Person may have pointed out several deficiencies in his work and recommended that he retake or reprocess several of the photos. But the student turns it in for credit anyway. You don't take time to check with the RP. The product looks pretty creative to you, so you give the student an "Outstanding" rating along with 5 credits in photography. You have now:

- led the student to think he is an outstanding photographer (he may even start considering it as a career, when in fact he has neither the commitment nor the patience to retake and reprocess over and over until he learns to do something right), and
- misled an employer two years later who calls in wanting a recommendation on the student's knowledge, skills, and work habits because he is about to hire the student as a photographic lab technician and saw on his transcript that he had earned credits in photography. He will be told that the student's work was rated "Outstanding", hire him, and perhaps fire him two months later.

Eventually, it is the student who will suffer if you continue to let him believe that the quality of his work in a subject or skill area is up to the standards of craftsmanship in the field when it is not. That is not to say you should dwell on his shortcomings. But do be honest about them and get on with helping him improve his performance or explore other fields and look for areas in which his abilities can be recognized, applied, and expanded.

Credit Assignment Procedures

Credit should be assigned as soon as possible after the student completes a project or supplementary activity. Credits earned are summarized at the end of each term for reporting to parents and updating transcripts.

Projects

When a student has completed a project and is ready to submit it for credit, he first obtains evaluations of his performance and products on the last page(s) of his Student Project Plan (from Resource Persons, you, or other designated evaluators). He then fills out a Project Summary Report, summarizing and evaluating his own work and requesting credit. (You may need to help him complete this form.) The student submits for final approval the Summary, his Project Plan with evaluators' verifications, and any supporting evidence (projects or recommendations). You then record your evaluations of the student's performance, determine the amount and kind of credits you will approve, and record a summary quality assessment. You also share your written and verbal comments with the student personally, letting him know that he may either elect to do additional work or appeal your decisions if he disagrees with your assessment.*

To ensure that students do not put off completing all projects until the end of a term, thereby placing a burden on you to review as many as 60 to 90 in a week or two, you may need to limit the number of projects students can submit in any one-month period for credit assignment. You should identify in advance the days of a semester when you will review projects and approve credit; for example, the first Monday of the month. The first credit assignment day should be in the sixth week of the semester, with subsequent credit assignment days one month apart until the end of the semester. This requires that a student plan to complete and submit the Project Summary Report about a week in advance of the credit assignment day.

As credit is awarded during the term for completed projects, you should record this information in the "Credits Earned" column of the Overview of Student Activities. This is an aid in progress monitoring, so you know at a glance which activities have been completed and which are still in progress. It also helps in providing a summary record to the Program Secretary at the end of the term.

Supplementary Learning Activities

Whenever possible, supplementary learning activities should be part of projects. Hence, assigning credit for them will often be concurrent with credit assignment for the project to which the supplementary activity is related.

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* You will need as a staff to work out an appeal procedure and authority. At Far West School, students could appeal a Learning Coordinator's decisions on credit to the Program Director (Principal).

External Courses. When the student completes an external course for EBCE credit, he must obtain a report indicating satisfactory completion from the instructor, and request formal approval from you. You record the kind and amount of credit, and the quality assessment, on the lower portion of the External Course Description. You may have to contact the course instructor personally for specific information on the student's participation and performance. (If the student completes a course for credit in the school where your program is located, you should not need this separate documentation of credit.)

Physical Education. Credit for independently planned physical education activities is assigned at the end of the term. You should periodically verify that the student is doing what he planned to meet physical education requirements. You can record verifications and dates directly on the student's Physical Education Plan, and enter credits earned on the Overview of Student Activities.

Tutorials, Workshops, or Independent Programmed Study. When a student first meets with a tutor or the Skills Specialist, that staff member completes a Diagnosis and Plan (page 183), specifying the student's goals, performance standards for determining when the supplementary activity has been completed, and the amount and kind of credit they have agreed on for satisfactory completion. In the case of a workshop, the Workshop Description (page 181) may serve the purposes of the Diagnosis and Plan.

You have final approval of the student's decision to enroll in supplementary activities and of the Diagnosis and Plan, so that you can dispute the objectives, standards, or amount of credit that will be awarded in advance. When the student achieves the standards, he and the tutor or Skills Specialist complete a Summary Progress Report. At the bottom of this form, the credit to be awarded is recommended by the tutor, workshop leader, or Skills Specialist. Logically, this would be the same amount indicated on the Diagnosis and Plan. You then review the report and supporting evidence and give your approval for credit. The procedure for appeal in the event of a dispute should be the same as procedures for appealing credit assigned to projects. Credit for supplementary learning activities should be assigned as soon as the student has achieved the objectives and requirements of the activity. Again, credits earned should be entered on the Overview of Student Activities.

End-of-Semester Procedures

Throughout the semester you should keep an up-to-date account of each student's assigned credit on the Overview of Student Activities. At the end of the term, you should summarize credits earned for each activity on the Credit Assignment Summary (page 231). At Far West School, this summary was typed by the Program Secretary since it becomes a final report to parents for the term. When approved by the Program Director, copies of the report are distributed to the student and his parents. The original goes in the student's permanent file. The Program Secretary then transcribes the credits, grouped by subject area rather than activity, to the student's official transcript.* Incomplete work should be noted by you and the student and considered in planning the following term's activities.

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* You may need to modify these procedures to meet local record-keeping and reporting requirements.

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Appendices

Appendix 1
EBCE Program Goals

The broad goal of the Far West Laboratory's Experience-Based Career Education (EBCE) program is to produce graduates who are equipped to function in the working world of adults. EBCE graduates should be:

- "Turned on" to learning: work at it, view every situation and every human contact as an opportunity to learn something.
- Planful: not only about their long-range futures, but about what they want to do and achieve each week.
- Self-reliant: able to set their own goals; plan activities; manage their time and other resources; work independently; recognize when they need help and seek it; evaluate their own behavior and learn from it; and accept the consequences of their own decisions and actions.
- Capable of interacting with adults as equals: know what is expected of them as adults; able to communicate on an adult level; able to make and keep realistic commitments to others and to have reasonable expectations of others.
- Capable of making realistic and satisfying career choices: more informed about career options and requirements and more aware of their own values, needs, goals, strengths, and limitations.
- Independent learners: able to identify what is worth learning; identify and use effective sources and methods of acquiring information; and analyze, evaluate, and incorporate new information into their own knowledge and experience base.

To develop these characteristics, students must develop skills and knowledge in several key areas. Program goals describing what students should learn are stated below: first in those core areas essential for all students; and second, for elective areas in which student growth is desirable and for which the program must provide learning resources and opportunities.

The goals presented below are statements of what EBCE graduates should know or be able to do. They are organized into three broad categories: career development, basic skills, and life skills, each with two or more subheadings. The specific goals under each subheading are shown in order of priority.

Core Program Goals

Career Development

Self-Development

1. The student will demonstrate awareness and understanding of his own current interests, abilities, and values relevant to career goal selection and achievement, and recognize that these may change with further education or experience.

2. The student will demonstrate self-reliance and ability to function responsibly and independently in daily activities, i.e., plan activities and manage time and other resources to accomplish goals, keep commitments to others, follow through on planned activities seeking guidance or assistance as necessary, evaluate his own behavior and performance, and accept responsibility for actions taken.

Career Decision-Making and Planning

1. The student will have a positive attitude toward planning his future education, career(s), and lifestyle.

2. The student will have integrated information about occupations and further education or training programs with information about himself.

3. The student will have demonstrated that he has made informed decisions regarding his post-high school educational/vocational plans.

Career Awareness

1. The student will have located and used information about occupations.

2. The student will know some of the factors associated with self-selected occupations that contribute to job success and job satisfaction.

3. The student will know the functions, characteristics and requirements of a broad range of self-selected occupations.

Career Entrance Skills

1. The student will have obtained information about specific employment and educational opportunities, completed application forms, taken interviews, written letters of application, and prepared a resume.

2. Those students who have tentatively selected a career area will have begun to acquire some related job-entry skills and experience.

Basic Skills

(to be demonstrated when in appropriate situations requiring the use of the skill)

Oral Communication Skills

1. The student will communicate facts, ideas, and feelings in a manner that is effective and appropriate to various situations (social, school, or work).

2. The student will listen effectively.

Writing Skills

1. The student will communicate facts, ideas, and feelings in writing so that most people can understand what was stated.

2. The student will write letters, descriptions, and reports required in daily life.

3. The student will demonstrate performance of writing skills necessary for his chosen career or continued education.

Reading Skills

1. The student will read selections from a newspaper or other popular periodical and (a) recognize the main point(s), (b) recognize the author's purpose, and (c) locate specific facts and details.

2. The student will read and comprehend materials pertaining to his area of career involvement, such as instructions, manuals, forms, parts lists, and technical articles.

3. The student will read and comprehend materials appropriate to his vocational and recreational interests.

4. The student will read selections required for educational or occupational advancement and (a) define the author's purpose and support that definition with evidence, (b) identify and explain different levels of meaning included in the selection, (c) identify biases with supporting evidence, (d) extend interpretation beyond the printed information, and (e) recognize and describe different writing styles.

Quantitative Skills

1. The student will perform arithmetic operations necessary for successful daily living, such as (a) making and receiving change, (b) budgeting, (c) banking, (d) completing tax forms, (e) doing comparison shopping, and (f) generally dealing with weights, measures, calendars, and clocks.

2. The student will comprehend and interpret information presented numerically and graphically as found in such media as newspapers and weekly news magazines.

3. The student will perform mathematical operations necessary for his chosen career or continued education.

Life Skills (to be demonstrated when in appropriate situations requiring the use of the skill)

Interpersonal Skills

1. The student will effectively participate in peer and adult interactions based on understanding of roles and obligations; respect for individual rights and perceptions; and ability to contribute to the resolution of conflicts resulting from differing personal needs and values.

2. The student will cooperate with others as a means of attaining goals he shares.

Problem-Solving Skills

1. The student will define problems by identifying needs or discrepancies between what is and what he thinks should be.

2. The student will use a variety of sources and techniques of data gathering.

3. The student will identify or generate alternative solutions, anticipate probable consequences or costs of various solutions, and choose or combine solutions based on their desirability and feasibility.

Decision-Making Skills

1. The student will recognize decisions that need to be made, including when they must be made.

2. The student will identify and acquire information required for effective decision-making, including alternative choices or options, their possible outcomes, and the probability and desirability of these outcomes.

3. The student will identify personal values and goals which relate to the decision being made.

4. The student will choose the alternative that fits best with personal values and goals.

5. The student will accept responsibility for his decisions.

Inquiry Skills

The student will develop and expand his skills of inquiry and critical thinking including such functions as classifying, comparing/contrasting, defining, interpreting, generalizing, analyzing, synthesizing, and evaluating information, events, and ideas.

Elective Student Outcomes

The goals above define the core curriculum of the EBCE program. These are areas in which student achievement of knowledge, skills, and experience are deemed essential. The EBCE instructional system also provides learning opportunities in other areas desired by the student, his parents, employers, or higher education institutions, but these are areas where growth may occur at any time if the student has acquired the basic core knowledge and skills essential to independent learning and adult living. These other curriculum areas are thus elective for individual students depending on their interests, goals, abilities, previous education and experience, and needs for meeting high school graduation, college or career entrance requirements.

Media Skills. The student will communicate and/or understand ideas or feelings expressed through media other than written or spoken words.

Physical Fitness and Health. The student will develop the knowledge and skills necessary to maintain good health and physical fitness.

Social and Cultural Awareness. The student will understand his social and cultural heritage as a means of understanding himself and his physical and social environment.

Political Awareness. The student will understand the basic workings of politics and government and the effect of governmental policies and activities on his daily life, and learn to effectively use his resources as a citizen to influence governmental action.

Economic Competence. The student will understand the basic economic forces that affect his daily life and will be able to manage his own economic resources effectively.

Technological Skills. The student will acquire knowledge and proficiency in using a variety of tools, equipment, machines, and instruments appropriate to his own interests, needs, and goals.

Aesthetic/Creative Development. The student will be aware of aesthetic forms, both natural and man-made; of various means and styles of artistic and creative expression; and will explore and/or pursue in depth any of a variety of forms of creative self-expression.

Social Science. The student will understand and use the concepts and methods of social science inquiry and his knowledge of the structure and organization of the various social science disciplines.

Science. The student will understand and use the concepts and methods of scientific inquiry and his knowledge of the structure, function, and organization of the various scientific disciplines.

Mathematics. The student will understand and become proficient in one or more fields of mathematics.

Foreign Language. The student will explore and/or develop proficiency in one or more foreign languages.

Appendix 2
Student Records System

Introduction

This section describes procedures and forms for recording and filing information about students' current and completed learning activities. The forms and instruments discussed below are tools to help plan, monitor, and record students' individualized EBCE programs.* Their use has been described throughout this handbook. Summary descriptions are provided here for ready reference. Attachment 1 lists each form used, who completes it, when, and where it is filed. Attachment 2 contains brief descriptions of each form used in learning coordination. Attachment 3 contains blank copies of all forms and instruments.

Storing Information

Student information is stored in several places. Learning Coordinators maintain current student program records, while the Program Secretary maintains permanent (completed) ones. The Secretary also keeps registration and attendance records and a separate file for letters of recommendation and correspondence about students' personal problems or unusual circumstances. The Skills Specialist maintains a file of materials directly relating to supplementary learning activities. (See the section on that records system in Supplementary Curriculum.)

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* Your staff should carefully review this set of forms to determine which ones are essential to its program, which are less important, what revisions, if any, must be made in forms that will be used, and how many copies of each should be printed and available on opening day. It is recommended that many forms be printed in multiple copies on no-carbon impression paper to enable easy distribution. These can be identified by a distribution legend at the bottom of the form.

Current Records

Current files are kept by Learning Coordinators because they need to use the information contained in them daily. Many current records, especially Long-Term Plans, Project Plans and Weekly Activity Schedules, are subject to continuous revision. Students' interests change, resources needed for a particular project may not be available, or an unexpected illness will require the student to revise his plans. Since the forms are constantly being removed, updated, and replaced, Far West School staff found large three-ring binders (one per student) the most convenient filing system to use. Exhibit 5 shows the contents of a student's notebook in the order recommended for filing.

Entry assessment, which takes place during students' orientation to the program, produces the first entries on forms -- the checklists and rating scales, and the Initial Planning Worksheet -- maintained in the current files. (See Items 1 through 9.) Based on this information and on group and individual discussions between Learning Coordinators and students, Long-Term Plans (Item 10) are completed. Students complete Weekly Activity Schedules (Item 12) at the beginning of each week and Student Activity Reports (Item 23) at the end of the week. As students engage in various activities -- visiting resources, developing projects, participating in tutorials, workshops, or external courses -- forms for planning these learning activities are completed and placed in their files.

For housekeeping purposes as well as to preserve records which may be needed for program evaluation, everything except the Long-Term Plan and Progress Monitoring Worksheets (Item 27) is transferred to the permanent files at the end of each term. (See procedures for this transfer on page 126.) If necessary for attendance reporting and documentation, Student Activity Reports can be transferred to the Program Secretary for permanent filing weekly. A copy of the Long-Term Plan is sent to the Secretary when completed early in the term. The student's Learning Coordinator keeps reference copies of Long-Term Plans and credit assignment summaries as long as the student is enrolled. Progress Monitoring Worksheets are kept by Learning Coordinators until the student leaves, then they are discarded.

Exhibit 5

Contents of Current Student Records File (Learning Coordinators' Notebooks)

I. OVERVIEWS AND PLANS	Overview of Student Activities Long-Term Plans *(previous and current)* Physical Education Plan
II. ASSESSMENT FORMS	Initial Planning Worksheet Reading Checklist Writing Scale Initial Essay Oral Communications Rating Quantitative Skills Checklist Career Information Checklist Career Decision-Making Rating Career Decision-Making Questionnaire *(optional)* Career Entrance Skills Checklist
III. PROJECT-RELATED MATERIALS	*For Each Project:* Project Sketch Resource Exploration Approval Project Plan Package Goal Checklist Project Products Resource Contact Report - Student Assessment Request for Resource *(when project-related)* External Course Description *(when project-related)* Request for Supplementary Assistance *(when project related)* Workshop Description *(when project-related)* Project Summary Report Student Orientation Objectives Checklist *(filed with mini-project during first term)*
IV. SUPPLEMENTARY LEARNING ACTIVITIES *(For each activity)*	A. Tutorials and Programmed Instruction Request for Supplementary Assistance Diagnosis and Plan Progress Reports Summary Progress Report B. Workshops Request for Supplementary Assistance Diagnosis and Plan *(optional)* Workshop Description Progress Reports Summary Progress Report C. External Courses External Course Description
V. WEEKLY SCHEDULES	Weekly Activity Schedules (and Student Activity Reports if desired)
VI. PROGRESS MONITORING	Progress Monitoring Worksheets Credit Assignment Summaries *(from previous term)*
VII. MISCELLANEOUS	Project Sketches *(which did not result in projects)* Early Drafts of Project Plans *(which have not been revised)* Requests for Resource *(which are not project-related)* Products not Related to Projects

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Permanent Records

In addition to accumulating each term's records, the permanent files contain students' applications for admission (see Student Recruitment and Selection), attendance records, transcripts, parental consent forms, and medical waivers. Exhibit 6 shows the recommended order for filing permanent records.

Secretary's Files

Confidential documents such as letters of recommendation, letters recommending a student's transfer back to his regular high school, and memos about serious conflicts between students and staff, resources, or other students are kept in this file. Students' parents and guardians have access to this file, but it is kept separate from the current files which are generally open to all students.

The Program Secretary also maintains records of registration and attendance. A completed registration card, which lists emergency information, is obtained from each student the first day of school. Learning Coordinators report weekly student attendance to the Secretary, who transfers the information to the school roster. If a student leaves the program, the Secretary completes the appropriate forms (whatever the district requires) and forwards copies to the central offices and the receiving school. If appropriate, the student's transcript is updated and forwarded to the receiving school.

Access to Files

Current files are kept in the Learning Coordinator's office where students can consult them as needed. Some LCs have students file their own Project Plans, Weekly Activity Schedules, and other forms. However, nothing should be removed from these working-files without the LC's consent. Learning

Exhibit 6

Contents of Permanent Student Records File (Maintained by the Program Secretary)

I. INITIAL PLANNING INFORMATION	Overview of Student Activities *(current)* Long-Term Plan *(current)* Rating Scales and Checklists Transcripts Test Scores
II. BACKGROUND INFORMATION	Parent Contact Report Medical Waivers *(if any)* Parental Consent Form Application for Admission Registration Records
III. WEEKLY SCHEDULES AND ACTIVITY REPORTS*	Weekly Activity Schedules Student Activity Reports
IV. PROGRAM SUMMARIES*	Credit Assignment Summary Overview of Student Activities Long-Term Plan Physical Education Plan
V. PROJECT-RELATED MATERIALS*	Student Orientation Objectives Checklist *(filed with mini-project)* *For Each Project:* Project Summary Report Project Sketch Project Plan Package Goal Checklist Project Products Resource Contact Report - Student Assessment Request for Resource *(when project-related)* External Course Description *(when project-related)* Request for Supplementary Assistance *(when project-related)* Workshop Description *(when project-related)*
VI. SUPPLEMENTARY LEARNING ACTIVITIES* *(For each activity)*	A. Tutorials and Programmed Instruction Summary Progress Report Diagnosis and Plan Progress Reports Request for Supplementary Assistance B. Workshops Summary Progress Report Workshop Description Diagnosis and Plan *(optional)* Progress Reports Request for Supplementary Assistance C. External Courses Progress Reports *(if any)* External Course Description

* *TERM FILES (grouped for each term and filed chronologically by term)*

Coordinators should review each student's file periodically for completeness and to determine how well students are progressing toward their expressed goals. Other staff have access to these files with the consent of the Learning Coordinator.

The permanent files provide complete records of students' plans, activities, products, and progress while enrolled in EBCE. Recent federal legislation requires that student records must be open to students and parents. Parents should have access to all student files on request.

The Skills Specialist and tutors use their files for coordinating tutorials and workshops, monitoring students' progress in supplementary learning activities, maintaining records of workshops offered, and recording students' evaluations of workshops. The information in these files is also necessary in case of his absence or the absence of a tutor or workshop leader so that substitutes can be arranged.

Information in the Secretary's files is available to staff and parents. The documents filed are kept there for the protection of the student's privacy rather than to prevent his knowledge of their contents.

End-of-Term* Transfer of Records From Current to Permanent Files

At the end of every term, the Learning Coordinator assembles for each student all credit assignment forms completed, along with substantiating documentation in the form of plans, products, and interim progress reports. All records related to each project or supplementary activity are grouped together with the credit assignment form on the top. Using the Overview of Student Activities (Item 11), the LC summarizes under the "Credits Earned" column the total number and kinds of credit earned or proposed for the term. The entire packet is forwarded to the Program Secretary for permanent filing. Records on incomplete work are retained by the Learning Coordinator until work is completed and credit approved. Using the Overview of Student Activities, the Secretary prepares a Credit Assignment Summary (Item 33) for the Program Director's approval. Comments on student performance and progress during the term may be added by the LC. Copies are forwarded to students, their parents, and the LC. Credits are then entered on the student's official transcript and the records are placed in the permanent files.

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* Adopters of the EBCE program may wish to accomplish this records transfer on a yearly basis.

Attachment 1
Forms Used in the Student Records System

ITEM	TITLE	COMPLETED BY	WHEN COMPLETED	DISTRIBUTION
ENTRY ASSESSMENT				
1	Reading Checklist	Learning Coordinator	During entry assessment; updated until requirement is met	Current file, student, permanent file
2	Oral Communications Rating	Learning Coordinator	During entry assessment; updated until requirement is met	Current file, student, permanent file
3	Quantitative Skills Checklist	Learning Coordinator	During entry assessment; updated until requirement is met	Current file, student, permanent file
4	Writing Scale	Learning Coordinator or Skills Specialist	During entry assessment; repeated ratings of products until requirement is met	Current file, student, Skills Specialist, permanent file
5	Job Information Questionnaire	Student	1. Optional use for entry assessment 2. Whenever student wishes to use it as a project product	1. With assessment forms 2. With project in current file
6	Career Information Checklist	Learning Coordinator	During entry assessment; updated until requirement is met	Current file, student, permanent file
7	Career Decision-Making Rating	Learning Coordinator	At entry if appropriate and at beginning of last term in program	Current file, student, permanent file
8	Career Decision-Making Questionnaire	Student	At entry if appropriate and at beginning of last term in program	Current file, student, permanent file
9	Initial Planning Worksheet	Student	Upon entry into program	Current file
PROGRAM PLANNING				
10	Long-Term Plan	Learning Coordinator (graduation and credit needs only); student (remainder with LC's help)	Within first four weeks of each term	Current file, student, parents, permanent file
11	Overview of Student Activities	Learning Coordinator	As student initiates activities and at end of term to summarize credit	Current file
12	Weekly Activity Schedule	Student	Before beginning of each week	Student, current file
13	Physical Education Plan	Student (LC approves)	At beginning of each term	Student, current file
14	Request for Supplementary Assistance	Student and LC Skills Specialist (LC approves)	When need has been identified When request is filled	Current file, Skills Specialist, student, tutor or workshop leader (if any)

ITEM	TITLE	COMPLETED BY	WHEN COMPLETED	DISTRIBUTION
PROGRAM PLANNING - Continued				
15	External Course Description	Student (LC approves) LC (for credit assignment)	Before enrolling in an external course When student completes course	Student, current file, Skills Specialist
16	Workshop Description	Workshop leader Student (to evaluate the workshop)	When planning a workshop When workshop is completed	Student, current file, Skills Specialist, workshop leader
17	Diagnosis and Plan	Skills Specialist, tutor, or workshop leader with student (LC approves)	When student begins a supplementary learning activity (other than an external course or workshop with common objectives for all participants)	Student, current file, Skills Specialist, tutor or workshop leader (if any).
18	Project Sketch	Student with LC's help if needed (LC approves)	When preparing for resource Orientations (as many as three resources per Project Sketch)	Student, current file, Resource Analyst
19	Resource Exploration Approval	Student (LC approves)	When student has arranged an Exploration with a resource	Resource Analyst, current file
20	Student Project Plan	Student with LC's and resources' help if needed (LC approves)	When drafting and updating Project Plans (final plan due one month before project due date)	Student, current file, resources/evaluators
21	Student Project Checklist (with appropriate Package Goal Checklist)	Learning Coordinator	Section A - Plans: should be referred to (but not necessarily filled out) at least once during planning of project Section B - Progress: should be referred to at least once before completion of project goals and indicators	Optional (Package Goal Checklist should be filed with Project Plan in current file)
22	Request for Resource	Student (LC approves) Resource Analyst notes action taken	When student needs a resource not in the resource pool After action has been taken	Student, current file, Resource Analyst
PROGRESS MONITORING				
23	Student Activity Report	Student (reviewed by LC)	At end of each week	Depending on local needs, current and/or permanent files
24	Student Orientation Objectives Checklist	Student Learning Coordinator verifies and approves for credit	During Orientation or by end of sixth week in program	Current file

<table>
<tr><th>ITEM</th><th>TITLE</th><th>COMPLETED BY</th><th>WHEN COMPLETED</th><th>DISTRIBUTION</th></tr>
<tr><td colspan="5">PROGRESS MONITORING - Continued</td></tr>
<tr><td>25</td><td>Resource Contact Report - Student Assessment</td><td>Learning Coordinator</td><td>Whenever LC contacts a resource (at least three times per student project)</td><td>Current file</td></tr>
<tr><td>26</td><td>Progress Report</td><td>Skills Specialist, tutor, or workshop leader (LC reviews)</td><td>At least once monthly as long as student is involved in supplementary learning activities (more often if necessary)</td><td>Skills Specialist, student, current file, tutor or workshop leader (if any)</td></tr>
<tr><td>27</td><td>Progress Monitoring Worksheet</td><td>Learning Coordinator</td><td>Throughout the year</td><td>Current file</td></tr>
<tr><td>28</td><td>Career Orientation Guide</td><td>Student</td><td>Optional form used whenever student wishes to use it as a project product</td><td>Current file</td></tr>
<tr><td>29</td><td>Career Entrance Skills Checklist</td><td>Learning Coordinator</td><td>Optional form may be used throughout student's enrollment</td><td>When used is filed with other assessment forms</td></tr>
<tr><td>30</td><td>Student Program Checklist</td><td>Learning Coordinator</td><td>Should be referred to (but not necessarily filled out) at least once a term</td><td>Optional</td></tr>
<tr><td colspan="5">CREDIT ASSIGNMENT</td></tr>
<tr><td>31</td><td>Project Summary Report</td><td>Student and LC</td><td>Whenever a project has been completed</td><td>Current file</td></tr>
<tr><td>32</td><td>Summary Progress Report</td><td>Skills Specialist, tutor, or workshop leader with student (LC approves)</td><td>Upon completion or termination of supplementary learning activities other than an external course</td><td>Current file, student, Skills Specialist, tutor or workshop leader (if any)</td></tr>
<tr><td>33</td><td>Credit Assignment Summary</td><td>Secretary (from Overview of Student Activities)
Learning Coordinator (Comments)
Program Director approves</td><td>At the end of each term</td><td>Student, parent, permanent file, current file</td></tr>
</table>

Attachment 2

Summary of Forms and Instruments Used in Learning Coordination

Below are brief descriptions of the forms and instruments used to help students plan and document their learning. The forms, many of which serve several purposes, are presented roughly in the order they are discussed in the text. The rating scales and checklists, for example, which are used to assess a student's competences at entry and as progress monitoring instruments throughout his enrollment in the program, are listed under Entry Assessment. Blank copies of the forms follow these descriptions.

Entry Assessment

Item 1: Reading Checklist* (page 147)

The Learning Coordinator uses this form to record observations of the student's reading competence. Five indicators are listed for judging the student's ability to read and understand different types of material. The EBCE reading requirement is satisfactorily completed when the student successfully completes four of the five indicators for three types of materials. As the student demonstrates reading comprehension, the Learning Coordinator initials and dates the appropriate indicator(s) on the form. The absence of entries may indicate either a staff need to observe student performance or a student need for assistance. When the requirement has been met, the Learning Coordinator certifies it, keeps a copy of the form and gives copies to the student and the Secretary (for the permanent files).

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* This item is also used as a progress monitoring instrument throughout students' enrollment in EBCE.

Depending on local requirements you may also need to administer a standardized reading test at entry. (See Entry Assessment.)

Item 2: Oral Communications Rating* (page 149)

The Learning Coordinator keeps one of these forms in the student's file and verifies when the student is observed (by himself, other staff, or a Resource Person) to have demonstrated the performance described. Ten points, out of 15 possible, meets the oral communications requirement. When the student's competence has been certified, the Learning Coordinator places the original form in the student's current file and forwards copies to the student and the Secretary for the student's permanent records. Again, the absence of recorded observations may indicate a student needs assistance in this basic skill area.

Item 3: Quantitative Skills Checklist* (page 151)

As with Items 1 and 2, this form is kept in the student's current file for ready reference and access. As the Learning Coordinator verifies each indicator based on his own observations, or those of someone else, he notes it on the checklist. The student must show competence in all 11 quantitative operations listed. When the requirement is met, the Learning Coordinator gives a copy of the form to the student, keeps the original in his student's file, and sends one to the permanent file. Depending on local requirements, you may also need to administer a standardized mathematics test at entry. (See Entry Assessment.)

Item 4: Writing Scale* (page 153)

Soon after entering EBCE, the student is asked to write a 250-word essay under controlled conditions. The essay is rated by the Learning Coordinator or Skills Specialist using this scale. A score of eight (out of a possible 12) satisfies the EBCE writing requirement. If an essay is not rated as satisfactory, the student can either submit three major written products, which each receive a satisfactory rating, or he can write another 250-word essay under controlled conditions at a later date. A separate form must be used each time a written work is rated. Whenever it is used, the original is placed in the current files (if completed by the Skills Specialist, it goes to the Learning Coordinator for review first), a copy is sent to the student, and one goes to the Skills Specialist. When the student has satisfied the requirement, a copy is also forwarded to the permanent files.

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* These items are also used as progress monitoring instruments throughout students' enrollment in the program.

Item 5: Job Information Questionnaire* (page 155)

This optional form is designed to show the amount of information a student has about a job or career he is considering or has explored. It can be used as an assessment instrument or as a project product. If part of a project, it should be submitted along with the other elements of the student's completed project and filed with them.

Item 6: Career Information Checklist* (page 159)

This instrument is used by the Learning Coordinator to keep track of the career fields and jobs students investigate. It provides a record of progress toward and completion of the EBCE career awareness requirement. When the student demonstrates knowledge of a career, the Learning Coordinator checks the appropriate boxes. When complete, copies of the form are filed in the student's current and permanent files and one is given to the student.

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* These items are also used as progress monitoring instruments throughout students' enrollment in EBCE.

Item 7: Career Decision-Making Rating* (page 161)

Based on an oral or written explanation of his post-high school plans, the Learning Coordinator rates the student's ability to use principles of informed decision-making. The rating form can be used at entry if desired. The final rating, to determine whether the student has satisfied the EBCE requirement, should be made no later than the beginning of his last term in the program to allow the student time to acquire any additional information for formulating his plans. Completed rating forms are filed in both the permanent and current files, and a copy is given to the student.

Item 8: Career Decision-Making Questionnaire* (page 163)

This is an optional form listing some questions that can be used to elicit information about the student's post-high school plans and use of the principles of informed decision-making. The student may respond to the questions orally or in writing. If the student decides to write his responses on the form, it should be filed with the Career Decision-Making Rating in his current and permanent files.

Item 9: Initial Planning Worksheet (page 165)

This form is completed by the student immediately upon entry to the program. On it he lists career and educational interests and answers several questions designed to help him think about what he would like to accomplish in the program. It provides the LC with leads for early discussions to assess the student's goals, needs, and interests as a basis for long-term planning and is filed in his current file.

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* These items are also used as progress monitoring instruments throughout students' enrollment in EBCE.

Program Planning

Item 10: Long-Term Plan (page 169)

Graduation course and credit needs are filled in by the Learning Coordinator before the student receives a copy. The remainder of the form is completed by the student with as much help as needed from his LC. The student lists career and educational plans; graduation and program requirements; specific careers, subjects, and issues he wants to explore; and then makes tentative plans for when to complete each requirement, satisfy each need, and pursue each interest. Those identified for the current term become his short-term goals. The Long-Term Plan, completed at the beginning of every term, is revised when necessary during the term. Changes are initialed and dated by the student and Learning Coordinator. Plans should be completed within the first four weeks of each term. Copies are filed in current and permanent files, one is given to the student, and one is mailed to his parents.

Item 11: Overview of Student Activities (page 171)

This form is used by the Learning Coordinator to record a student's projects and supplementary activities as the student initiates them. He estimates the amount of credit the student will receive for each activity and records credit on the form as it is earned. The Overview gives the Learning Coordinator an up-to-date record of the student's entire program.

Item 12: Weekly Activity Schedule (page 173)

The student lists his planned activities as completely as possible before each new week begins. He keeps a copy and gives one to his Learning Coordinator, who posts it outside his office. The student enters any changes on both copies daily.

Item 13: Physical Education Plan (page 175)

This form is used when students can earn physical education credit with independent activities or external courses. (If students must enroll in regular physical education classes, this form is unnecessary.) It is completed by students at the beginning of each term. The form requires the approval of the Learning Coordinator, who, from time to time, will check with the listed person(s) to verify the student's activities. Any changes during the term should be recorded, initialed by the Learning Coordinator and student, and dated. The Physical Education Plan is filed with other current records and a copy goes to the student.

Item 14: Request for Supplementary Assistance (page 177)

The upper part of the form is completed by the student and Learning Coordinator when a need has been identified. The lower portion is completed by the Skills Specialist. When the request has been acted upon, the Skills Specialist returns the original to the Learning Coordinator, keeps a copy, and, when appropriate, sends one to the tutor or workshop leader. The Learning Coordinator should review the form before filing it to be sure the activity chosen meets the student's needs and is consistent with his total program. If a potential problem is identified, the Learning Coordinator should consult both the student and the Skills Specialist.

Item 15: External Course Description (page 179)

The student completes this form for any external course in which he plans to enroll. Community college courses, Red Cross courses, community center classes, or adult education classes are all considered external courses. The student states his reasons for taking the course and includes a description of it. The Learning Coordinator must approve all external courses by signing the form. He keeps this form in the current file, gives a copy to the student, and sends one to the Skills Specialist. When the course is completed, the Learning Coordinator (based on a written or oral report from the instructor) fills out the bottom section with the amount and kind of credit and a quality assessment. At the end of the term the form is transferred, with the rest of the student's records, to the permanent files.

Item 16: Workshop Description (page 181)

A planning form for workshop leaders, the Workshop Description is used to assure that students understand the objectives and methods of a workshop, including the basis for credit assignment, if any, for it. Whenever possible, this form is completed after discussing objectives and performance criteria with the workshop participants. The last section of the form provides space for students to report their participation and evaluate the workshop. After completing this section, the student submits the form to his Learning Coordinator, who keeps it in the student's file. It is used as part of the documentation for credit assignment along with the Summary Progress Report. The Skills Specialist also receives a copy. Student evaluations of the workshops may be summarized and discussed with the workshop leader to guide planning for future workshops.

Item 17: Diagnosis and Plan (page 183)

When a student begins a supplementary activity (other than an external course or most workshops), the Skills Specialist, tutor, or workshop leader records on this form the student's diagnosed need, and the agreements reached with the student on objectives, performance standards, and credit. The Skills Specialist reviews the plan and forwards the original to the Learning Coordinator for approval. Copies are given to the student and tutor or workshop leader, the Skills Specialist keeps a copy, and a copy is placed in the student's current file.

Item 18: Project Sketch (page 185)

This is a tool used by the student to prepare for as many as three related resource Orientations. When a student completes a Project Sketch, he gives it to his Learning Coordinator for approval. The original is filed in the student's current file. This is one source of information for the Learning Coordinator's monitoring of the student's activities and progress in developing projects. If the student subsequently develops a project, the associated Student Project Plan is filed with the Project Sketch(es). The student takes a copy of the Project Sketch with him to Orientations.

Item 19: Resource Exploration Approval (page 187)

The student fills out this form after he and the resource have agreed to work together and arranged a schedule of future meetings. It informs Learning Coordinators when a student is ready to begin his project activities. The Learning Coordinator must approve the student's request and he then forwards it to the Resource Analyst who may need to control the number of students working with a particular resource. (See Resource Development.)

Item 20: Student Project Plan (page 189)

This form is completed by the student with as much help as he needs from his Learning Coordinator. The last page(s) of the form is used both for planning and evaluating the student's work. Here a student states his goals and indicators, products, evaluators, and due dates. He begins working on this form during the initial planning of his project, concurrent with resource Orientations and the beginning of Explorations. After he has learned enough about his area of interest to know specifically what he wants to learn, he develops his goals and indicators. One month before the project completion date, the last page(s) should be completed with goals and indicators agreed upon by the student and his Learning Coordinator. Copies of this form go in the student's current file, to his resources and designated evaluators, and to the student.

When the project has been completed, the evaluators certify on the last page(s) whether goals and indicators have been achieved.

Item 21: Student Project Checklist (page 193)

The first part of this form is used to review the adequacy of the student's Project Plan, along with the appropriate package goal checklist (see the Project Planning Packages). The lower part of the form is for assessing a student's progress toward completion of his project. The Project Checklist should be referred to at least once during the planning and again before completion of the project. It is an optional instrument that does not need to be filed. (The package goal checklist, however, should be filed with the student's Project Plan.)

Item 22: Request for Resource (page 195)

A student completes this form when he is interested in a career, a subject, or an issue for which there are no developed resources. The student states the reason for his request, the learning activity level he would like to engage in, and his suggestions (if any) for potential resources to contact. After his Learning Coordinator reviews and approves the request, it is forwarded to the Resource Analyst. If the Resource Analyst can immediately fill the student's request, he notes the results on the form, sends a copy to the student and the original to the Learning Coordinator, and retains a copy for his files. If additional action is required, the Resource Analyst records the action taken thus far and its outcome on the form, notifies the student and the Learning Coordinator orally or by note, and completes the form either when the request is filled or he decides he cannot fill it. The form should be returned to the student and Learning Coordinator only after final action has been taken.

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* This item is also used for progress monitoring.

Progress Monitoring

Item 23: Student Activity Report (SAR) (page 197)

The SAR provides staff with information about what activities students are involved in; which resources they are visiting, for how long, and how often; and how much time per week they are spending on school activities. Since it is completed by students at the end of the week, it can be checked against the Weekly Activity Schedule (prepared at the beginning of the week) to see how students' plans compare with their activities. After being reviewed by the Learning Coordinator, these forms are filed in students' current or permanent files depending on local needs. (If the EBCE program has access to computer facilities, the staff may wish to ask the FWL-EBCE evaluation staff about a computer program for summarizing data from the SARs. This program is available for adaptation by your district.)

Item 24: Student Orientation Objectives Checklist (page 199)

This instrument lists all the objectives new students must accomplish during their first six weeks in the program to receive orientation credit. As the student completes an objective, he checks it off on the form and has his Learning Coordinator verify it. When all objectives have been met, the Learning Coordinator assigns credit. The completed form is filed in the current file along with the student's orientation products (a mini-project and other evidence of satisfaction of the objectives).*

Item 25: Resource Contact Report — Student Assessment (page 201)

The Learning Coordinator completes one of these after a phone call or personal visit to a resource to assess the progress of a student. Here he records his observations about the student's learning and activities at the site. This includes checking the student's progress toward his project goals and identifying problems the resource faces in helping the student achieve them. There should be at least three contacts (and reports) per student project: one before approving the Project Plan to make sure the resource has seen it; one before the student has finished his project to assess his progress; and one after the student has completed his project goals to obtain the resource's evaluation and comments. These reports are filed with the appropriate project in the student's current file.

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* See the Orientation handbook for a complete discussion of this form.

Item 26: Progress Report (page 203)

This form is used by the Skills Specialist, a tutor, or a workshop leader to report the student's progress in a supplementary learning activity (except for very brief workshops and external courses which require other means of obtaining such information). It is completed monthly, or more often if the student is having difficulty. The Skills Specialist keeps a copy, one copy is for the tutor or workshop leader, one for the student, and the original goes to the student's Learning Coordinator, who reviews (and files) it, and discusses the reported progress or problems with the student.

Item 27: Progress Monitoring Worksheet (page 205)

This form is used by the Learning Coordinator to record and keep track of his assessment of student strengths and needs in basic skills, life skills, and career development; specific observations or indicators of the student's attitude, knowledge, and skills; and the actions he decides to take in working with the student. Whatever is written here should be discussed with the student and is confidential between the student, the Learning Coordinator, and the student's parents. These forms are filed only in the current files and are discarded when the student leaves the program.

Item 28: Career Orientation Guide (page 207)

This instrument is designed to help a student gain specific kinds of information about careers. An optional form, the student can take it with him to resource Orientations or Explorations as a tool for asking significant questions and making significant observations. He can complete parts of it during the site visit, but the last sections, asking for an evaluation of the career in relation to his own goals, values, and desired lifestyle, must be completed later. Completed Career Orientation Guides may be submitted as project products and, as such, are filed with the student's related project materials.

Item 29: Career Entrance Skills Checklist (page 221)

On this optional checklist the Learning Coordinator can record when a student has successfully obtained information on employment and educational opportunities, completed applications for jobs or for school admissions, taken interviews, written letters of application, and prepared a resume. When used, it is filed with the other rating scales and checklists.

Item 30: Student Program Checklist (page 223)

This form lists the criteria for an acceptable student program. The Learning Coordinator keeps a copy as a handy reference for reviewing a student's activities. It is not a form that must be filled out. Learning Coordinators should compare the student's activities with these criteria at least once a term. The Learning Coordinator may choose to use the form to report problems with a student's program to the EBCE Program Director.

Credit Assignment

Items 24 and 15 are used to record credit assigned for the completion of orientation objectives and external courses, respectively.

Item 31: Project Summary Report (page 225)

The student completes this form each time he finishes a project in order to summarize and evaluate his own work and request credit. (The Learning Coordinator may have to help him fill out the form.) On it, he records activities in which he participated, goals he completed, additional significant learning not stated in the goals, and the amount and type of credit he is requesting. This, along with the Project Plan (containing evaluator ratings, comments, and initials) and completed products, is the supporting evidence the Learning Coordinator reviews for credit assignment. After discussing his credit determinations and quality assessments with the student, the Summary, Plan, and products are filed in the student's permanent records.

Item 32: Summary Progress Report (page 229)

This form is used to summarize the student's progress upon completion (or termination) of supplementary learning activities other than external courses. It reports the student's performance, and records credit earned and a quality assessment. It is completed by the Skills Specialist (or by the tutor or workshop leader and approved by the Skills Specialist). Copies are given to the Learning Coordinator for his review, approval, and filing and to the student, the Skills Specialist, and the tutor or workshop leader.

Item 33: Credit Assignment Summary (page 231)

Throughout the term the Learning Coordinator keeps an up-to-date record of each student's assigned credits on the Overview of Student Activities. At the end of the term, he summarizes those credits on this form which, since it becomes a final report to parents, is typed by the Secretary. When approved by the Program Director, copies are distributed to the student and his parents and the original is placed in the permanent file. The information on this form is then transcribed by the Secretary onto the student's official transcript. (These procedures may have to be modified to meet district reporting requirements.)

Attachment 3

Forms

Experience-Based Career Education

READING CHECKLIST

STUDENT	A	B	C	D	E	F
INDICATORS OF READING COMPREHENSION	*News Articles*	*Literary Works*	*Texts*	*Business Documents*	*Techn'l Instructions*	*Technical Articles*
1. Communicates an understanding of the author's purpose, citing supporting evidence						
2. Communicates an understanding of the author's main points, citing supporting evidence						
3. Cites and locates specific facts						
4. Identifies the author's biases, citing supporting evidence						
5. Draws inferences and conclusions, extending interpretations beyond the printed information						

Examples of Reading Materials

A. NEWS ARTICLES - *newspapers, magazines*

B. LITERARY WORKS - *novels, essays, literary magazines, and reviews*

C. TEXTS - *sources of information such as textbooks, encyclopedias, Occupational Outlook Handbook*

D. BUSINESS DOCUMENTS - *leases, loan agreements, tax instructions*

E. TECHNICAL INSTRUCTIONS - *automobile repair manual, electronic kit instruction manual*

F. TECHNICAL ARTICLES - *professional and scientific journals, magazines, reviews and reports*

QUALIFICATION CRITERIA: *To meet the EBCE reading requirement, there must be evidence that the student can do FOUR of the above five indicators with each of THREE of the six types of material.*

NOTE TO OBSERVER: Enter your initials and the date on the appropriate line in the materials section when you verify a competency. Before doing so be sure that you have made enough observations in different situations (such as group discussions, oral and written presentations, and visits to resources) to be reasonably certain that you have accurately judged the student's skills.

I certify that the student has met the EBCE reading requirement. LC ____________________ DATE ____________

Distribution: Original (White) - LC/files; Yellow - Student; Pink - permanent file

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Item 1

Item 2

Experience-Based Career Education	ORAL COMMUNICATIONS RATING

STUDENT

STUDENT ACTION	OBSERVER'S NAME *(EBCE staff or RP)*	DATE	VERIFIED BY *(LC)*
1. The student successfully transacted business on the telephone, e.g., made an appointment with a resource stating his/her name, purpose for calling, and areas of interest (Maximum: 3 points)			
2. The student clearly explained to a resource what he/she wanted to learn at the site. (Maximum: 2 points)			
3. The student answered questions about his/her learning activities, explaining what he/she was doing and why, to your satisfaction. (Maximum: 2 points)			
4. The student successfully followed complex verbal directions (more than one item or step was involved). (Maximum: 2 points)			
5. The student helped another student by giving him/her clear verbal directions. (Maximum: 2 points)			
6. When asking for help from a staff member or a resource, the student effectively stated the problem confronting him/her. (Maximum: 2 points)			
7. The student made a formal presentation which communicated information, ideas, and informed opinion to a group of at least three students and staff. (Maximum: 2 points)	*Type of Group:* *Type of Group:*		

Please comment on the student's overall ability to communicate orally ______________________________

____

____

NOTE: 10 POINTS ARE REQUIRED TO SATISFY THE ORAL COMMUNICATIONS REQUIREMENT. TOTAL POSSIBLE POINTS = 15

I certify that the student has met the oral communications requirement for EBCE.

LC DATE TOTAL POINTS

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Item 3

Experience-Based Career Education

QUANTITATIVE SKILLS CHECKLIST

STUDENT LC

Please review the Certification Criteria and Verification sections on the reverse side of this checklist before proceeding with your observations of the student's performance and competency.

TASKS

The student has demonstrated his/her ability to perform the tasks described below.

DESCRIPTION OF TASKS PERFORMED	OBSERVER	VERIFIED BY *(Initials)*	DATE
1.			
2.			
3.			
4.			
5.			
6.			

OPERATIONS

By performing the above tasks, the student has demonstrated his/her competence in the operations listed below.

OPERATION	TASK NO.	VERIFIED BY *(Initials)*	DATE
1. Addition of whole numbers			
2. Subtraction of whole numbers			
3. Multiplication of whole numbers			
4. Division of whole numbers			
5. Addition of fractions			
6. Subtraction of fractions			
7. Multiplication of fractions			
8. Division of fractions			
9. Conversion of fractions to decimals			
10. Use of decimals and percent			
11. Measurement			

I certify that the student has met the quantitative skills requirement for EBCE.

LC DATE

Distribution: Original (White) - LC/files; Yellow - Student; Pink - permanent file

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QUANTITATIVE SKILLS CHECKLIST - *Instructions for Observers*

CERTIFICATION CRITERIA

In order to meet the EBCE requirement, the evidence must show that the student can perform at least six tasks that, in total, demonstrate competency in all eleven of the quantitative operations on the checklist. Examples of tasks are shown below.

1. *Balance a checkbook.*
2. *Compute the interest on a loan.*
3. *Determine the number of square feet of floor space in a house or apartment.*
4. *Determine how much paint to buy for a room of given size.*
5. *Complete a federal income tax return (Form 1040), including tax calculation.*
6. *Make change.*
7. *Calculate miles per gallon of gasoline.*
8. *Convert quantities in a recipe to increase or decrease the quantity yielded by the original recipe (food recipe, paint mix recipe, etc.)*
9. *Calculate the cost of owning a given automobile for three years.*
10. *Construct a budget.*

NOTE TO THE LEARNING COORDINATOR:

The tasks that you select to assess a student's performance do not have to be exactly the ones listed above, but they should be comparable tasks. Means of making observations include giving the student practical problems to solve, encouraging the student to incorporate quantitative goals and indicators in his/her projects, and administering tests.

VERIFICATION

When you verify the student's competency, enter your initials and the date in the appropriate space provided in the Task and Operations sections. Be sure to enter the numbers of the tasks observed in the first column of the Operations section.

Item 4

Experience-Based Career Education	WRITING SCALE					
WRITING SKILL	Consistently	Frequently	Occasionally	Never or Almost Never	Rating Points*	Area(s) in which additional work would help the student overcome writing deficiencies. (Check appropriate items)
1. Is the student able to organize and present ideas clearly?						[ ] Paragraphs [ ] Logical Development of Ideas [ ] Use of Specific Detail [ ] Other ______
2. Does the student structure sentences correctly?						[ ] Word Order [ ] Phrases [ ] Clauses [ ] Sentence Completion [ ] Other ______
3. Does the student use grammar and vocabulary correctly?						[ ] Verbs [ ] Pronouns [ ] Possessives [ ] Adjectives [ ] Plurals [ ] Word Choice [ ] Other ______
4. Does the student use punctuation correctly and spell accurately?						[ ] Capitalization [ ] Periods [ ] Commas [ ] Spelling [ ] Other ______
A score of 8 on an essay written under controlled conditions or on three consecutive written projects satisfies the EBCE writing requirement. SCORE						ITEM RATED: [ ] Essay (controlled test) [ ] Journal [ ] Project Report [ ] Letter [ ] Other ______

Please comment on the student's overall ability to communicate in writing: ______

______

*CRITERIA	RATING
Consistently (90% of work is acceptable)	3
Frequently (50% or more of work is acceptable)	2
Occasionally (Less than 50% of work is acceptable)	1
Never or Almost Never (10% or less is acceptable)	0

EVALUATOR'S SIGNATURE ______ DATE ______

STUDENT ______

I certify that the student has met the writing skills requirement for EBCE.

LC ______ DATE ______

Distribution: Original (White) - LC/files; Yellow - Student; Pink - permanent file; Goldenrod - Skills Specialist

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Item 5

Experience-Based Career Education	JOB INFORMATION QUESTIONNAIRE

Completing this questionnaire is one way of demonstrating what you know about a career you are considering or a particular job you have explored. Answer the following to the best of your ability.

STUDENT LC DATE

CAREER OR JOB TITLE

1. I have visited [ ]0, [ ]1, [ ]2, [ ]3 or more resource sites where this job is performed.

2. List five things you would have to do as part of this job.

3. What level of schooling or type of training is generally required of persons entering this job?

   [ ] Less than high school graduation
   [ ] High school graduation
   [ ] Two years college
   [ ] Military training
   [ ] On-the-job training
   [ ] Four years college
   [ ] More than four years college
   [ ] Special vocational school
   [ ] Apprenticeship training

4. What school subjects or areas of study are most related to this kind of work? (Is knowledge of certain subjects likely to make one more successful on the job? If so, what subjects are they?)

5. What special licenses or certifications must be obtained and what must be done to get them? (For example, acquiring a radio operator's license, a teaching certificate, or a license to operate a day care center or to sell real estate.)

FWL-EBCE Rev.1/76

JOB INFORMATION QUESTIONNAIRE | *Page 2 of 4*

6. What range of pay could you expect from this kind of work? $ ____________________

7. Are any physical qualities required for persons doing this kind of work (e.g., able to stay on one's feet for long periods of time or lift heavy loads; height, vision, etc.)?

8. Describe the physical surroundings in which this work is generally performed (e.g., indoor, outdoor, crowded, spacious, clean, dirty, colorful, drab, etc.).

9. List at least five tools, instruments, or pieces of equipment used in this work.

10. Describe the personality of the type of person you would expect to do well in this job. Name at least three characteristics (e.g., calm, industrious, good leader, friendly, etc.).

11. Can these qualities be developed or learned? If so, how?

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JOB INFORMATION QUESTIONNAIRE	*Page 3 of 4*

12. Do you think in the next few years there will be much of a demand for people in this kind of job? How do you know?

13. How is the nature of the job likely to change over the next ten years? Why?

14. What likelihood is there of advancement or promotions for people in this job? Explain.

15. What are three related or similar jobs that a person who does this job might also be able to do and might enjoy doing?

16. What influence does this job have on one's lifestyle (e.g., effect on family life, geographical location, avocations, people one associates with, etc.)? Be as specific as you can and say why you think so.

FWL-EBCE Rev.1/76

JOB INFORMATION QUESTIONNAIRE	*Page 4 of 4*

17. What kinds of things about this job would you most like? Why? Name at least four characteristics or aspects of the job that you like.

18. What would you most dislike about this job? Why? Name at least four things.

19. What are the likely working hours for people doing this job?

20. I have obtained information about this job from the following sources (check as many as apply):

[ ] Visiting job site(s)
[ ] Talking to my LC
[ ] Talking to friends
[ ] Talking to people on the job
[ ] Talking to my parents
[ ] Television, radio, newspaper
[ ] Other printed material (specify):
[ ] Other (specify):

21. In what ways do you feel that this would be a good job for you? How does it match with your interests, values, abilities, and goals?

22. In what ways would this NOT be a good job for you? Be specific.

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Experience-Based Career Education

CAREER INFORMATION CHECKLIST *(See instructions on back)*

STUDENT

NUMBER OF YEARS STUDENT PLANS TO BE IN PROGRAM ____________

CAREER FIELD	JOB TITLE	CAREER INFORMATION							
		Roles & function of employee	*Relation of career to other career areas*	*Qualification & routes for entry*	*Working conditions; rewards & benefits*	*Current & projected demand*	*Effect on lifestyle*	*Personal evaluation*	*LC's initials & date*

I certify that the student has met the career awareness requirement for EBCE.

LC ____________________ DATE ____________

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Item 6

CAREER INFORMATION CHECKLIST

INSTRUCTIONS TO LEARNING COORDINATOR

To meet the EBCE career awareness requirement, the student must show that he/she is knowledgeable about at least three career fields for each year he/she is in the program. Normally this would be shown by knowledge of at least two jobs in each field. However, a student may meet the requirement by showing knowledge of fewer jobs in more areas or more jobs in fewer areas. (Two closely related jobs, such as medical lab technician and medical lab assistant or streetcar motorman and bus driver, count as a single job.) But before certifying that the student has met the requirement, be sure he or she has explored jobs at various levels across diverse career fields.

For each job, the student must demonstrate knowledge of at least four of the six kinds of information listed. The student must evaluate every job in terms of his or her own abilities, interests, values, goals, and preferred lifestyle. When you have verified this, enter the name of the career field and the job, check the kinds of knowledge demonstrated by the student and add your initials and date.

When the student has satisfied the EBCE requirement, certify in the space provided, give a copy of the checklist to the student, and forward a copy to the permanent files.

Item 7

Experience-Based Career Education	CAREER DECISION-MAKING RATING

STUDENT ____

The Learning Coordinator completes this form before the student's last term in the program, based on: the student's oral or written responses to the Career Decision-Making Questionnaire and a review of his Career Orientation Guides, Job Information Questionnaires, and all project products that demonstrate his/her knowledge or use of career decision-making skills. The student must receive a yes rating on items 1 through 8 or 2 through 9 to meet the EBCE career decision-making requirement.

	YES	NO
1. Can the student state his/her career plans for the coming year, including any plans for additional education or training?		
2. Does the student recognize career-related decisions that need to be made?		
3. Has the student examined career options in terms of his/her values and preferred lifestyle?		
- Does he/she know what his/her current values are? What he/she cares most about?		
- Does he/she know whether the careers he/she is considering will help or make it more difficult for him/her to be the kind of person and live the kind of life he/she wants?		
4. Does the student possess sufficient information about the options he/she is considering to make informed decisions?		
- If not, what kind of information does he/she still need to acquire? *(Check when information is acquired)*		
______________________________		
______________________________		
______________________________		
5. Has the student examined his/her abilities in relation to the alternatives he/she is considering?		
- Does he/she know what he/she will have to do to prepare himself/herself to meet entry requirements and to succeed in his/her chosen endeavor?		

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CAREER DECISION-MAKING RATING (Continued)

	YES	NO
6. Has the student anticipated possible barriers or obstacles such as cost, competition, availability of positions?		
7. Does the student have any contingency plans should his/her interests change or barriers arise which prevent him/her from entering his/her chosen career?		
8. Does the student know how to make an informed decision, including the steps listed below or their equivalent? • Determine the importance of the decision. (The possible effects of deciding, not deciding, or postponing a decision.)		
• Identify possible alternative actions; consider as many options as possible.		
• Predict the possibility and probability of outcomes for each action.		
• Identify criteria (values) for determining which outcomes are most desirable.		
• Evaluate outcomes and options in terms of desirability and feasibility.		
9. If the student does not have well-formulated career plans, can he/she identify the kinds of information he/she needs to acquire about himself/herself and his/her options before making decisions about his/her immediate future?		
• Does he/she have realistic plans for acquiring this information?		

I certify that the student has met the EBCE career decision-making requirement.

LC ______________________________ DATE ____________________

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Item 8

Experience-Based Career Education	CAREER DECISION-MAKING QUESTIONNAIRE

STUDENT LC DATE

Please answer the following questions to the best of your ability. Use additional pages if necessary.

1. What decisions about your immediate future do you still need to make and when should you make them?

2. What do you plan to do after leaving high school?

3. What options did you consider when making these plans?

4. Why did you choose this particular course of action?

5. What career fields have you considered entering?

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CAREER DECISION-MAKING QUESTIONNAIRE (Continued)

6. Have you selected a particular career or careers to prepare yourself for? Which one(s)?

7. Why do you believe that this is the best choice for you? How does the career(s) relate to your values, abilities, or other goals?

8. What do you plan to do if your interests change or you are unable to enter your chosen career?

9. If you have not made any plans, what kinds of information do you need about yourself and the possible things you might do after high school to make informed decisions about your immediate future?

10. Where and how will you obtain that information?

Item 9

Experience-Based Career Education	INITIAL PLANNING WORKSHEET

STUDENT GRADE

LEARNING COORDINATOR DATE

1. *Have you identified any specific career(s) you would like to know more about?*

   [ ] Yes [ ] No If yes, state the career(s) of interest:

2. *Do you presently have plans to pursue or begin training in any career(s) after you finish high school? Which one(s)?*

3. *If you DO plan to pursue or begin training for a specific career after you finish high school, please list the things you have to do before you can actually begin work in your chosen career such as complete apprenticeship training, qualify for a license, earn an A.A., B.A., or other degree(s), etc.*

4. *While you are enrolled in EBCE, you will be able to explore careers by working with people engaged in various kinds of jobs. You may spend time with a person primarily DISCUSSING his/her career or job, or you may spend more time and learn to PARTICIPATE in some of the things that person does as part of his/her job. Please list the career(s) in which you have an interest and check the kinds of experience you would like to have for each. (Note: What you say here does NOT mean you have to do these things.)*

CAREER OR JOB	EXPERIENCE DESIRED *(Please check)*	
	Discussion	Participation

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5. If you plan to continue your formal education after you finish high school, check [✓] the level of education you hope to achieve and (if possible) list the name of the institution you are planning to attend.

☐ Community College ______________________________

☐ State University ______________________________

☐ Private College or University ______________________________

☐ Business School ______________________________

☐ Vocational/Trade School ______________________________

☐ Apprenticeship ______________________________

☐ Graduate or Professional School ______________________________

☐ Company Training Program ______________________________

☐ Military Training ______________________________

☐ Other (specify) ______________________________

6. What subjects and social issues are of particular interest to you?

____

____

____

____

____

7. Please check any of the following areas in which you would like to have extra help while you are in EBCE:

☐ Reading

☐ Mathematics

☐ Writing

☐ Expressing Yourself

☐ Meeting and Dealing with People

☐ Study Habits

☐ Health and Fitness

☐ Other (specify)

____

____

____

____

____

____

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INITIAL PLANNING WORKSHEET	STUDENT:	*Page 3*

8. What are your favorite leisure activities? Why?

9. What social and/or recreational activities would you like to be a part of, especially those which could include other EBCE students? What team activities would you like to be a part of?

10. What else do you think your Learning Coordinator should know about you, your goals, interests, or needs?

FWL-EBCE Rev.1/76

Item 10

Experience-Based Career Education	LONG-TERM PLAN			
Student		Grade Level	Term	
Learning Coordinator		Planned Graduation Date		

WHAT ARE YOUR CURRENT POST-HIGH SCHOOL CAREER AND/OR EDUCATIONAL PLANS? *(Indicate the alternatives you are considering below)*		HOW CERTAIN DO YOU FEEL ABOUT YOUR PLANS?		
		Just Thinking About It	*Reasonably Certain I Will Pursue It*	*Very Certain*
CAREER PLANS	*1.*			
	2.			
	3.			
	4.			
EDUCATIONAL PLANS	*1.*			
	2.			

DISTRICT GRADUATION REQUIREMENTS			WHEN DO YOU PLAN TO COMPLETE EACH?			
Confirmed with counselor? ☐ *Yes* ☐ *No*		*Credits Needed*	*This Term*	*Next Term*	*Next School Yr*	*Other*
READING	*Passed Test* ☐ *or Completed Reading Workshop* ☐					
MATH	*Passed Test* ☐ *or Completed Math Workshop* ☐					
REQUIRED COURSES	*Mathematics*					
	Science					
	English					
	World Studies					
	Related Social Science					
	United States History					
	Related Social Science					
	American Government					
	Related Social Science					
	Physical Education					
ELECTIVES						
OTHER						
	TOTAL					

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Page 2 of 2

LONG-TERM PLAN

EBCE REQUIREMENTS	COMPLETED?	DO YOU WISH TO DEVELOP THESE SKILLS OR KNOWLEDGE FURTHER?	WHEN DO YOU PLAN TO WORK ON EACH? This Term	Next Term	Next School Yr	Other
1. Reading Skills						
2. Quantitative Skills						
3. Oral Communication Skills						
4. Writing Skills						
5. Career Awareness (6 careers per year)						
6. Career Decision-Making Skills						
CAREER FIELDS YOU WANT TO EXPLORE						
SUBJECTS OR ISSUES YOU WANT TO EXPLORE						
List additional education requirements you must meet and/or skills you must acquire if you are to pursue your post high school plans (including college entrance requirements).						

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Experience-Based Career Education

OVERVIEW OF STUDENT ACTIVITIES

Term ____________ *Year* _____

STUDENT

LEARNING COORDINATOR

DATE

STUDENT PROJECTS	PROJ NO.	PROJECT TITLE	PACKAGE	PROJECT PLAN APPROVED *(Date)*	REVISED PLAN APPROVED *(Date)*	PLANNED END DATE	CREDITS PLANNED		CREDITS EARNED		
							Subject	*Amount*	*Subject*	*Amount*	*Date*
OTHER ACTIVITIES	EXTERNAL COURSES	*Course Title*	*Agency*	*Days & Time*	*Begin Date*	*End Date*	▨	▨	▨	▨	▨
	TUTORIALS/ WORKSHOPS	*Subject*	*Tutor or Workshop Leader*		*Is Plan Complete?*	*End Date*	▨	▨	▨	▨	▨
	PHYSICAL EDUCATION	*List Major Activities:*									
		Is Physical Education Plan on file? ☐ *Yes* ☐ *No*				TOTAL	▨		▨		▨

Item 11

FWL-EBCE Rev.1/76

Item 12

Experience-Based Career Education

WEEKLY ACTIVITY SCHEDULE

Week of ______________________________

Enter planned activities at school and appointments with resources. Update daily.

Student ______________________________ LC ______________________________

		TIME	MORNING	TIME	AFTERNOON
MONDAY	SCHOOL				
	FIELD		Circle: RP, RO, CR		Circle: RP, RO, CR
			Name		Name
			Phone		Phone
TUESDAY	SCHOOL				
	FIELD		Circle: RP, RO, CR		Circle: RP, RO, CR
			Name		Name
			Phone		Phone
WEDNESDAY	SCHOOL				
	FIELD		Circle: RP, RO, CR		Circle: RP, RO, CR
			Name		Name
			Phone		Phone
THURSDAY	SCHOOL				
	FIELD		Circle: RP, RO, CR		Circle: RP, RO, CR
			Name		Name
			Phone		Phone
FRIDAY	SCHOOL				
	FIELD		Circle: RP, RO, CR		Circle: RP, RO, CR
			Name		Name
			Phone		Phone

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Item 13

Experience-Based Career Education

PHYSICAL EDUCATION PLAN
(please print)

STUDENT

TERM

LC

To the Student:

Record below your planned physical education activities and who will be able to verify that you engaged in these activities. Check with your Learning Coordinator to assure that your planned activities are sufficient to justify the physical education credit you desire.

PLANNED ACTIVITY	HOW OFTEN	HOW LONG EACH TIME	AVERAGE HOURS/ WEEK	LOCATION OF ACTIVITY	NAME & PHONE NO. OF PERSON *who can verify that you engaged in activities shown*
Baseball					
Basketball					
Bowling					
Exercises					
Handball					
Jogging					
Swimming					
Tennis					
Volleyball					
Other (specify)					
Physical Education Rest		▨	▨	*Medical form on file?* [ ] *Yes* [ ] *No*	
TOTAL HOURS OF PHYSICAL ACTIVITY PLANNED EVERY WEEK				*Student's Signature*	

APPROVED BY LEARNING COORDINATOR

DATE

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Item 14

Experience-Based Career Education	REQUEST FOR SUPPLEMENTARY ASSISTANCE

Note to Learning Coordinator: Give the form with the top section completed to the Skills Specialist. A copy of the form with the bottom section completed will be returned to you when action has been taken. Please use a separate form for each request.

ASSISTANCE IS NEEDED IN THE FOLLOWING SKILL OR SUBJECT AREA:

NAME OF STUDENT: ____________________

TYPE OF ACTIVITY PREFERRED:
- ☐ *tutorial*
- ☐ *workshop*
- ☐ *external course*
- ☐ *independent study using programmed materials*

DAYS AND HOURS PREFERRED: ____________________

LC APPROVAL ____________________ DATE ____________

(signature)

TO STUDENT AND LEARNING COORDINATOR:

☐ YOUR REQUEST HAS NOT BEEN FILLED BECAUSE ____________________

☐ YOUR REQUEST HAS BEEN FILLED:

TUTOR *(name)* ____________________ DAYS AND HOURS ____________

WORKSHOP LEADER *(name)* ____________________ ____________

EXTERNAL COURSE *(title)* ____________________ PLACE ____________

REMARKS: ____________________

SKILLS SPECIALIST ____________________ DATE ____________

(signature)

Distribution: Original (White), Pink, and Goldenrod - Skills Specialist; Yellow - student files. After bottom section is completed, return White to LC. When appropriate give Goldenrod to Tutor or Workshop Leader.

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Item 15

Experience-Based Career Education	EXTERNAL COURSE DESCRIPTION

STUDENT ________________________ LEARNING COORDINATOR ________________________

SCHOOL OR AGENCY OFFERING COURSE ________________________

____

COURSE TITLE ________________________ INSTRUCTOR ________________________

CREDIT OFFERED BY SCHOOL OR AGENCY: ________ *Semester units;* ________ *Quarter units*

CLASS DAYS AND TIMES ________________________

SEMESTER OR QUARTER DATES: *From* ________________ *through* ________________

COURSE DESCRIPTION *(from school or agency catalog)* ________________________

____

____

YOUR REASON(S) FOR TAKING THIS COURSE: ________________________

____

____

____

IS THIS COURSE PART OF A PROJECT?

[ ] YES *(Attach completed form to Project Plan.)* [ ] NO *(Explain reason below.)*

____

____

EBCE CREDITS TO BE EARNED: ________ *credits in* ________________ *subject area*

LEARNING COORDINATOR'S APPROVAL ________________________ DATE ____________

(NOTE: EBCE DIRECTOR'S APPROVAL IS REQUIRED FOR MORE THAN ONE COURSE PER SEMESTER.)

EBCE DIRECTOR'S APPROVAL *(if needed)* ________________________ DATE ____________

EBCE CREDIT ASSIGNMENT

FINAL GRADE OR QUALITY ASSESSMENT RECEIVED FROM INSTRUCTOR ________________________

EBCE CREDITS APPROVED: *Subject* ________________________ *Credits* ____________

LEARNING COORDINATOR'S SIGNATURE ________________________ DATE ____________

REMARKS ________________________

____

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Item 16

Experience-Based Career Education	WORKSHOP DESCRIPTION

SUBJECT/SKILL AREA ______________________ WORKSHOP LEADER ________________

MEETING DATES __________________________ TIME ________________________

OBJECTIVES FOR STUDENTS ____

____

____

____

____

____

____

METHODS OR STRATEGIES: *(lecture, discussion, exercises, simulations, etc., and materials to be used)*

____

____

____

TOTAL NUMBER OF MEETINGS PLANNED________________ APPROXIMATE LENGTH OF MEETINGS______________

CREDITS OFFERED *(if any)*:__________________ CREDITS IN______________________
(number) *(subject area)*

BASIS FOR CREDIT ASSIGNMENT: *(completion of above objectives, individualized objectives, participation in meetings, other)* ____

____

STUDENT EVALUATION OF WORKSHOP: *Please use the space below to evaluate this workshop, indicating what you learned, liked or disliked, etc., and return this form to your Learning Coordinator for your file. Use additional pages if necessary.*

____

____

____

____

STUDENT'S NAME______________________ NO. OF WORKSHOP MEETINGS ATTENDED________ LC______________

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Item 17

Experience-Based Career Education	DIAGNOSIS AND PLAN *(for Supplementary Learning Activities)*

This form is to be completed by the Skills Specialist, Tutor, or Workshop Leader to record the needs and objectives of individual students.

STUDENT LC DATE

PREPARED BY POSITION

1. WHAT IS THE STUDENT'S GENERAL NEED? *(e.g., basic math, chemistry, oral communications)*

2. WHAT DIAGNOSTIC STEPS DID YOU TAKE TO DETERMINE THE STUDENT'S SPECIFIC NEEDS AND DIFFICULTIES? *(e.g., test, interview, written assignment)*

3. WHAT ARE THE STUDENT'S SPECIFIC NEEDS (RESULTS OF DIAGNOSIS)?

4. IDENTIFY LEARNING ACTIVITIES SELECTED: *Workshop*
   Tutorial *Independent Study*
   Materials *Other*
   REASON:

5. HOW WILL THESE ACTIVITIES BE INTEGRATED WITH THE STUDENT'S PROJECT(S)?

6. OBJECTIVES AND PERFORMANCE STANDARDS AGREED UPON WITH STUDENT:
   (Use additional page if necessary.)

7. AMOUNT OF CREDIT YOU AND THE STUDENT PROPOSE FOR THE SUCCESSFUL COMPLETION OF THIS WORK:
   credits in *subject area*

8. SCHEDULE OF APPOINTMENTS OR WORKSHOPS WITH
   (Tutor/Workshop Leader)
   DAYS TIMES DATES: FROM TO

SKILLS SPECIALIST'S APPROVAL DATE

LEARNING COORDINATOR'S APPROVAL DATE

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Pink - Skills Specialist; Goldenrod - Tutor or Workshop Leader

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Item 18

Experience-Based Career Education	**PROJECT SKETCH**

Use this form to plan your resource orientations. Obtain your Learning Coordinator's approval before visiting a resource.

STUDENT ______________________ LC ______________________ DATE ____________

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

____

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____
7. ____
8. ____

III. WHAT RESOURCES WILL YOU USE?

RF/RO/CR *(Circle one)* ______________________ *Phone* ____________

Address ____

RF/RO/CR *(Circle one)* ______________________ *Phone* ____________

Address ____

RF/RO/CR *(Circle one)* ______________________ *Phone* ____________

Address ____

OTHER RESOURCES *(Give name of person or title and author of books, articles, etc.)*

____

____

I HAVE READ THE RESOURCE GUIDE(S) [ ]Yes [ ]No *If not, give reasons:* ____________

____

____

APPROVED BY LC ______________________ DATE ____________

LC FOLLOW-UP	[ ] The student has decided to do a project in this interest area. [ ] The student has decided not to pursue this interest further because: ______________________________

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

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Item 19

Experience-Based Career Education	RESOURCE EXPLORATION APPROVAL

Note to Student:

If you plan visits beyond the Orientation level with a resource, you must complete the information below and obtain your Learning Coordinator's approval.

Please print or type all entries and be sure of correct spelling.

RESOURCE NAME *RP[ ] RO[ ] CR[ ]*

TITLE

ORGANIZATION

STREET ADDRESS

CITY/STATE/ZIP

TELEPHONE

YOUR NAME DATE

PROJECT TITLE

PLANNED SCHEDULE OF ADDITIONAL VISITS *(including dates and times, if known):*

COMMENTS:

LEARNING COORDINATOR'S APPROVAL DATE

Following approval by the Learning Coordinator, forward this form to the Resource Analyst, who will

1. *flag the resource file if the resource requested is being used to capacity and (if appropriate)*
2. *interview the resource and develop a Resource Guide.*

FWL-EBCE Rev.1/76

Item 20

Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT ______________ PROJECT NO. ________ PACKAGE ______________

LC APPROVAL ______________ DATE ______________ DATE PROJECT STARTED ______________

TECHNICAL ADVISOR(S) *(If any)* ______________

I. PROJECT DESCRIPTION

A. *Title* ______________

PLANNED CREDITS

		EBCE Credits
Subject Area(s)	*1.* ______________	________
	2. ______________	________
	3. ______________	________

B. *Theme* *(Please give a brief description of your project)* ______________

C. *Questions to be Investigated:*

FOR LEARNING COORDINATOR USE ONLY

Mid-Term Review	*Initials*	*Date*	*End-of-Term Review*	*Initials*	*Date*

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STUDENT PROJECT PLAN | *Page 2 of*

II. IDENTIFICATION OF RPs, ROs, & CRs

A. *Completed Visits* *(Identify resources already visited for Orientation)*

Resource Name	*Address*	*Phone*	*RP*	*RO*	*CR*	*Hours Spent*

B. *Planned Visits* *(Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)*

Resource Name	*Address*	*Phone*	*Acty *Level*			*RP*	*RO*	*CR*	*Est. Hours*
			O	*E*	*I*				

** O = Orientation; E = Exploration; I = Investigation*

C. *Related Reading/Research* *(Give Titles and Authors)* ____________________

____

____

____

____

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS *(See Resource Guides. Some sites require special insurance, health certificates, etc.)*

A. Prequisites ____

B. Materials or Equipment ________________________________

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits ________ *Hrs.* *Product Production* ________ *Hrs.*

B. Reading ________ *Hrs.* *Other (specify)* ________ *Hrs.*

TOTAL HOURS __________

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT ____________________

PLANNED PROJECT COMPLETION DATE ____________________

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page of

Student ______ *LC* ______ *Project Title* ______

Goals and Indicators	*For Indicators*		*For Evaluator's Use*		
	Due Date	*Evaluator*	*Date*	*Initials & Rating*	*Comments*

USE AS MANY COPIES OF THIS PAGE AS ARE NECESSARY

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INSTRUCTIONS FOR COMPLETING
THE LAST PAGE(S) OF YOUR PROJECT PLAN

TO THE STUDENT:

1. Your project GOALS should say what you want to learn about or learn how to do. Use verbs such as know, understand, solve, perform, and communicate. For example, you might want to learn how to play the guitar, develop photographs, understand the political party system in the United States, or know what effects pollution has had on plants and animals that live in your area.

2. Your INDICATORS should tell how you and your Learning Coordinator will know when you have satisfactorily accomplished your goals. Indicators are examples of some of the things you should be able to do when you complete your project. They must include at least one product. You should use words like describe, compare, organize, analyze, and construct when writing your indicators. See the sample projects in the project planning packages for examples.

3. Give DUE DATES for each indicator to tell when you will complete the product or demonstrate you can perform the task described.

4. State who will EVALUATE each performance or product.

5. NUMBER each goal statement and use LETTERS to identify your indicators.

Your Learning Coordinator can help you write your goals and indicators, making sure they meet the appropriate package goals. Show your Project Plan, even early drafts of it, to your resources and to whomever you want to evaluate your products and performance. Your resources need to know what you want to learn and will tell you whether they can help you learn it. They may suggest some changes in your goals and indicators. Your evaluators need to know, in advance, what they will be asked to evaluate.

When you have completed a product or are ready to have a performance judged, ask your evaluators to write their ratings and comments (be sure they initial each) on this form. When all of your evaluators have recorded their ratings and comments, submit your Project Plan, together with a completed Project Summary Report and all of your products, to your Learning Coordinator for his or her evaluation and for credit assignment.

TO RESOURCES AND EVALUATORS:

This form tells you what the student has set as his/her goals and indicators for this project. The student may have designated you as the appropriate person to determine whether he/she has satisfactorily completed some of the indicators.

If you have agreed to evaluate the student's progress and performance in these areas, please use this form to record your rating(s) and comments. Rate the student's performance on each indicator by entering the appropriate number:

1 = Product or task SATISFACTORILY COMPLETED
2 = Product or task PARTIALLY COMPLETED, or needs improvement (please explain)
3 = Product or task NOT COMPLETED
4 = Cannot evaluate

Please initial each rating, sign your comments, and return this form to the student.

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Item 21

Experience-Based Career Education	STUDENT PROJECT CHECKLIST

STUDENT LC DATE

A. PLANS	YES	NO
REQUIRED ELEMENTS OF PROJECT		
1. Has the student planned an Exploration with at least one RP or RO?		
2. Has the student identified related reading?		
3. Has the student specified at least one tangible product?		
4. Has the student identified interim deadlines for indicators and products and a deadline for project completion?		
5. Is there someone designated to evaluate each indicator and product?		
6. Does the student plan to attend all related project seminar meetings?		
7. Is the project related to the student's long-term plans?		
REVIEW OF GOALS AND INDICATORS:		
8. Do the goals and indicators focus on the development of knowledge of skills which will be useful in other contexts?		
9. Do they challenge the student to go beyond what he/she already knows or knows how to do?		
10. Does the importance of the goals and indicators warrant the estimated time involved?		
11. Do project goals and indicators meet minimum package goals? *(See appropriate package goal checklist.)*		
12. Are all the indicators realistic, given the time and resources available?		
13. Is each indicator stated in terms of observable student performance?		
14. Is there a sufficient number of indicators to determine whether the student has achieved his/her stated goals?		
15. Does each indicator include a performance standard?		
16. If not, should a performance standard be included?		
B. PROGRESS		
1. Have you checked the student's progress with his/her Resource Person(s)?		
2. Is the student involved in activities and working on products that will allow him/her to achieve his/her project goals and indicators?		
3. Has the student shown his/her Project Plan to his/her Resource Person(s)?		
4. Should the student's activities be redirected so that his/her original goals and indicators can be achieved?		
5. Is the student pacing his/her work to complete the project by the agreed-upon date?		
6. Should the student's Project Plan, goals and/or indicators be changed?		
7. Should the due date be rescheduled?		
8. Is the student participating in the appropriate project seminars?		

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Item 22

Experience-Based Career Education	REQUEST FOR RESOURCE

1. STUDENT ______________________ DATE OF REQUEST ______________

2. CAREER, SUBJECT, OR SKILL AREA IN WHICH RESOURCE IS NEEDED ______________

3. REASON DESIRED: ☐ *Career study* ☐ *Personal interest* ☐ *Graduation requirement* ☐ *Other (specify)* ______________

4. INVOLVEMENT LEVEL DESIRED: ☐ *Orientation* ☐ *Exploration* ☐ *Investigation*

5. SUGGESTED RESOURCES OR CONTACTS: ______________

6. STUDENT'S SIGNATURE ______________________ DATE ______________

7. LC APPROVAL ______________________ DATE ______________

8. ACTION TAKEN: *(Date and initial each entry.)* ______________

9. RESOURCE ANALYST ______________________ DATE ______________
(signature)

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Distribution: After approval, LC holds Goldenrod (suspense copy) and forwards rest of set to Resource Analyst. After completing required action, Resource Analyst retains Pink copy and returns Yellow to Student and Original (white) to LC/files.

Item 23

Experience-Based Career Education	STUDENT ACTIVITY REPORT
STUDENT ______________________________	Week No.
LC ______________________________	Student ID No.

ACTIVITIES IN THE COMMUNITY

Resources Visited	Resource ID Number	Hours	Project Number
Other Project Activities in the Community			

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STUDENT ACTIVITY REPORT (CONTINUED)

ACTIVITIES AT THE SCHOOL	HOURS	PROJECT NUMBER
Project Seminars		
1. *Commerce Package*		
2. *Life Science Package*		
3. *Physical Science Package*		
4. *Social Science Package*		
5. *Communications and Media Package*		
6.		
7.		
Study and Product Preparation		
Other Activities		
* *Workshops*		
* *Meetings with Tutor*		
* *Study Related to Tutoring*		
* *External Courses*		
Individual Meetings with LC		
Advisory Group Sessions		
Physical Education		
Other EBCE Activities (specify)		

* *Enter project number if related to a project.*

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Item 24

Experience-Based Career Education

STUDENT ORIENTATION OBJECTIVES CHECKLIST

INSTRUCTIONS: Keep this checklist with you during student orientation. Check the box [✓] for each part of the objective as you complete it. When you complete an objective, take all supporting evidence to your LC for verification. When you have completed all objectives, attach the Student Project Plan and Student Project Summary Report for your mini-project to this checklist and submit it to your LC for credit. Successful completion of orientation objectives is worth 5 EBCE credits. You may request credit as early as the end of the third week of school, but no later than the end of the sixth week.

OBJECTIVES

1. COMPLETE LONG TERM PLANNING ACTIVITIES:

   [ ] *Complete a Long Term Plan including (3.10):**

   - ° *Identify: course units and EBCE requirements needed for graduation, subject areas needed for post-high school plans, career areas to explore, and issues or subjects to explore (3.1).*
   - ° *Identify semester goals you hope to achieve in the coming semester (3.2).*

   [ ] *Complete a Physical Education Plan (3.10).*

VERIFICATION: *LC* *Date*

2. DEMONSTRATE YOUR ABILITY TO LOCATE RESOURCES, PLAN AND CARRY OUT RESOURCE ORIENTATIONS, AND REPORT WHAT YOU LEARNED:

   [ ] *Complete a Project Sketch including the following (3.10):*

   - ° *Identify a career of interest for resource Orientations.*
   - ° *List questions you wish to ask during the resource Orientations or subsequent activities.*
   - ° *List Resource Persons and Resource Organizations you plan to visit to find out more about this career (3.4).*

   [ ] *Make an appointment with a resource on the telephone and keep it.*

   [ ] *Summarize, in writing, the following information about a career (3.6):*

   - ° *How you qualify for entry and advancement.*
   - ° *Possible ways to enter and advance.*
   - ° *Working conditions such as physical environment, social milieu, hours of work, and effect on lifestyle.*
   - ° *Monetary, psychological, and other rewards associated with the job.*
   - ° *Current and projected demand in the field.*
   - ° *What you like and dislike about the career and why.*

VERIFICATION: *LC* *Date*

---

* *Numbers in parentheses refer to objectives in the Orientation handbook.*

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STUDENT ORIENTATION OBJECTIVES CHECKLIST | *Page 2 of 2*

3. DEMONSTRATE YOUR ABILITY TO PLAN AND COMPLETE PROJECTS:

☐ *Complete a Student Project Plan for a mini-project on which you accomplish the following (3.8, 3.10):*

- *State a theme for the project.*
- *State at least one basic skills activity.*
- *State at least one goal each related to career development and life skills.*
- *List the things you will do to complete the project including at least one product. (This could be an essay or a Career Orientation Guide you completed for Objective 2.)*
- *Indicate who will evaluate your project.*
- *State a due date for the project.*

☐ *Complete the mini-project by the stated due date and fill out a Project Summary Report (3.8, 3.10).*

VERIFICATION: *LC* *Date*

4. DEMONSTRATE YOUR WILLINGNESS TO PARTICIPATE IN THE EBCE PROGRAM:

☐ *Attend all advisory group workshops during orientation.*

☐ *Complete all initial assessment tests and forms.*

☐ *Properly complete a Weekly Activity Schedule (3.10).*

☐ *Properly complete a Student Activity Report (3.10).*

VERIFICATION: *LC* *Date*

DATE SUBMITTED FOR CREDIT ______________________

CREDIT APPROVAL: *LC* ________________________ *Date* ____________

EBCE Credits ______ *Subject* ________________

QUALITY ASSESSMENT: ☐ *Outstanding* ☐ *Very good* ☐ *Acceptable* ☐ *Needs work*

REMARKS: ____

____

____

____

____

____

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Item 25

Experience-Based Career Education	RESOURCE CONTACT REPORT - STUDENT ASSESSMENT

NAME OF RESOURCE ____________ ☐ RP ☐ RO ☐ CR

ORGANIZATION ____________ PHONE ____________

CONTACT MADE BY ____________ DATE ____________

CHECK ONE: ☐ Personal visit ☐ Telephone call ☐ Resource visit to school

NAME OF STUDENT ____________

LEVEL OF INVOLVEMENT: ☐ Orientation ☐ Exploration ☐ Investigation

Number of visits made by student ____________

Average length of these visits ____________

1. Has the student discussed his or her project goals with the resource? ☐ Yes ☐ No
2. Has the student shown the resource his or her project plan? ☐ Yes ☐ No
3. How does the resource evaluate the student's planning, preparation, and performance? ____________

   Why? ____________

4. Has the student asked the resource to evaluate his or her work? ☐ Yes ☐ No
5. Is the resource willing and able to evaluate the student's work? ☐ Yes ☐ No
6. Are the student's goals realistic for the types of activities he or she engages in with the resource? ☐ Yes ☐ No (If not, please explain) ____________
7. What recommendations would the resource like to make at this time, if any? ____________
8. What help, if any, would the resource like from EBCE staff? ____________

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9. Learning Coordinator's Comments: (Describe what you think the student is learning, problems that need attention, strategies you and the resource agree upon for working with the student, or other pertinent information.)

Item 26

Experience-Based Career Education	PROGRESS REPORT *(for Supplementary Learning Activities)*

This form is to be completed by the Skills Specialist, Tutor, or Workshop Leader to report student progress monthly, or more frequently, as necessary.

STUDENT DATE PROGRESS REPORT NO.

LC SUBJECT AREA

PREPARED BY POSITION

1. WHAT ACTIVITIES HAVE YOU AND THE STUDENT ENGAGED IN DURING THE PAST FOUR WEEKS? WHICH OBJECTIVES WERE YOU TRYING TO ACCOMPLISH?

2. RECORD ANY CHANGES IN DECISIONS MADE (E.G., DIAGNOSIS, OBJECTIVES, STANDARDS) AS STATED ON THE DIAGNOSIS AND PLAN OR WORKSHOP DESCRIPTION.

3. DESCRIBE THE STUDENT'S PROGRESS WITH REFERENCE TO STATED OBJECTIVES.

4. DESCRIBE THE STUDENT'S EFFORT TOWARD THESE STUDIES:

   ☐ *little effort* ☐ *steady effort* ☐ *outstanding effort*

   COMMENTS:

5. INDICATE THE STUDENT'S ATTENDANCE:

   *a. How many scheduled meetings did you have with the student?*______________

   *b. How many appointments did the student keep?*______________

   *c. Did the student let you know when he or she could not attend?*______________

6. WHAT ADDITIONAL COMMENTS DO YOU HAVE ABOUT THE STUDENT'S WORK?

Distribution: Original (White) - LC/files; Yellow - Student;
Pink - Skills Specialist; Goldenrod - Tutor or Workshop Leader

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Experience-Based Career Education	PROGRESS MONITORING WORKSHEET

Student LC Page of

AS OF DATE	OBSERVATIONS/INDICATORS	ASSESSMENT/CONCLUSION	DECISION - ACTION TAKEN (if any)

Refer to Progress Monitoring Worksheet Categories on reverse side.

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Item 27

Progress Monitoring Worksheet Categories

Career Development

Self-Development

- Knowledge of interests, abilities and values; recognition that these may change.
- Self-reliance; ability to function responsibly and independently.

Career Decision-Making and Planning

- Attitude toward planning.
- Status in planning.
- Ability to apply principles of informed decision making.

Career Awareness

- Ability to locate and use career information.
- Breadth and depth of awareness.

Career Entrance Skills

- Knowledge of job finding or school entrance steps and techniques.
- Acquisition of specific entry skills and experience related to goals.

Life Skills

Interpersonal Skills

- Confidence and skills in dealing with others.
- Participation in groups.
- Handling of conflict situations.
- Conduct in cooperative endeavors.

Problem-Solving Skills

- Ability to identify/clarify problems.
- Use variety of sources and techniques of gathering data.
- Approach to problems.

Decision-Making Skills

- Recognizes decisions that need to be made.
- Approach to decisions.
- Understands kinds of information needed.
- Uses principles of informed decision-making.
- Accepts responsibility for own decisions.

Inquiry Skills

- Process of questioning.
- Critical thinking.
- Application of skills to new problems/situations.
- Cognitive level of thinking.

Basic Skills

Communications Skills

- Ability to communicate effectively in variety of situations.
- Ability to listen effectively.

Writing Skills

- Ability to communicate in writing.
- Technical competence.
- Ability to use different styles/formats appropriate to purpose.

Reading Skills

- Functional literacy.
- Comprehension/interpretation.
- Amount/variety of reading.

Quantitative Skills

- Application and problem solving in everyday situations.
- Comprehension of quantitative information.

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Item 28

CAREER ORIENTATION GUIDE

Resource Site

Career Investigated

Project Number

Date

Student

Learning Coordinator

experience based career education

Adapted from Guide developed by

Appalachia Educational Laboratory

INTRODUCTION

An Orientation visit to a resource site helps you become more aware of the kinds of jobs that are available within a career or subject area, how these jobs affect one's life, and how they compare with your own interests, abilities, and ambitions. To do this, you will have to observe and ask questions of the resource and other workers at the site. This Guide will help you ask appropriate questions as well as provide space for recording answers and other information you may obtain during your visit. You may want to take photographs of people working at various jobs or to tape some of your conversations with individuals at the site. REMEMBER -- you should obtain permission from each person you would like to photograph or record conversations with BEFORE you take a picture or make a tape recording.

RESOURCE ORGANIZATION AND RESOURCE PERSON DATA

Name of Organization ______________________________

Kind of Business ______________________________

Address ______________________________

____

Name of RP or RO Coordinator ______________________________

Position or Job Title ______________________________

Telephone Number ______________________________

SUGGESTED ACTIVITIES

The following activities provide guidelines which will help you collect the kinds of information you need in order to analyze and evaluate jobs at the resource site. Each activity includes either something to do or questions to be answered. You may not be able to answer every question, but you should be able to obtain most of the information requested. Some activities give you choices of things to do or ways to present your findings. You may even choose to develop your own career orientation guide.

ACTIVITY NO. 1

A. Discuss the organization with the Resource Person to find out its primary purpose.

B. Summarize what you learned in the space below.

MAIN PURPOSE OF ORGANIZATION

ACTIVITY NO. 1 *(Continued)*

C. (Optional) If you observe some work situations (people working at their jobs, production lines, manufacturing processes, etc.) which really show the purpose of the organization, you may want to use photographs as descriptive material. Take a couple of pictures of those situations, but don't forget to obtain permission before you take any pictures. Mount your pictures in the spaces below.

PHOTO

Caption

____

____

____

Caption

____

____

____

PHOTO

ACTIVITY NO. 2

Ask the resource to help you identify the different kinds of jobs that people hold in the organization. Try to obtain the most accurate title you can for each job and list it below.

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________
6. ______________________________
7. ______________________________
8. ______________________________
9. ______________________________
10. ______________________________
11. ______________________________
12. ______________________________
13. ______________________________
14. ______________________________
15. ______________________________

ACTIVITY NO. 3

A. Choose one person to observe and interview:

Name of Person ______________________________

Job Title ______________________________

B. Watch the person at work and get the following information (ask questions, if necessary):

	High	Medium	Low
1. To what extent does the person's job deal with the following:			
a. Information	☐	☐	☐
b. People	☐	☐	☐
c. Things (tools, equipment, etc.)	☐	☐	☐
2. To what extent does the job require the person to:			
a. Follow definite instructions	☐	☐	☐
b. Be his or her own boss	☐	☐	☐

ACTIVITY NO. 4

A. Continue to watch the person working at his or her job, ask questions, and get information which describes the KINDS of information, people, and/or things the person works with.

B. Prepare descriptive material. You can choose either Option 1 or Option 2 as the method of presentation.

OPTION 1: Write a detailed description of the KINDS of information, people, and/or things the person works with. Use additional sheets of paper if necessary.

ACTIVITY NO. 4 *(Continued)*

OPTION 2: **Take photographs and/or make a tape recording for descriptive material.** *Be sure to include the tape you make as part of this package.*

PHOTO

Kinds of Information

____

____

____

Kinds of People

____

____

____

PHOTO

PHOTO

Kinds of Things

____

____

____

ACTIVITY NO. 5

A. What KINDS of people does the person work with? (Check the appropriate box or boxes to indicate a working relationship.)

☐ *Fellow workers*
☐ *Supervisor*
☐ *Customers/Clients*
☐ *Suppliers*
☐ *Others (specify)* ____________________
____

B. Of the kinds of people checked above, which kind does the person spend the most time with? ____________________
____

Why? (For what purpose?) ____________________
____
____

C. What skills does the person use when dealing with these people? (What does he/she have to know or know how to do?) ____________________
____
____
____

ACTIVITY NO. 6

Where and how did the person first learn to do this kind of work? (You can check check more than one item.)

☐ *In the organization*
☐ *In a school*
☐ *Independently on his/her own (self-taught). How did he/she teach himself/herself?* ____________________
____
____

☐ *Other (specify)* ____________________
____
____
____

ACTIVITY NO. 7

What level or type of education or training is required to qualify for and get the job?

- ☐ *University/College*
- ☐ *Community College*
- ☐ *High School*
- ☐ *Union Apprenticeship*
- ☐ *Military Training*
- ☐ *Other (specify)* ____________________

ACTIVITY NO. 8

What subject matter knowledge does the person use in doing this job? (You can check more than one item.)

- ☐ *English*
- ☐ *Business Administration*
- ☐ *Mathematics*
- ☐ *Biology, Chemistry, Physics, etc.*
- ☐ *History*
- ☐ *Psychology*
- ☐ *Political Science*
- ☐ *Foreign Languages*
- ☐ *Other (specify)* ____________________

ACTIVITY NO. 9

Interview the person who works at the job you are analyzing and try to learn the following:

A. How long has the person been doing this type of work? ____________________

____

B. What other jobs has the person had? ____________________

____

____

C. What does the person like and dislike about his/her current job?

____

____

____

____

ACTIVITY NO. 9 *(Continued)*

D. Do the person's friends have similar careers? ☐ Yes ☐ No

If not, what kinds of careers do they have?

E. What hobbies and recreational activities does the person pursue? How do they fit in with his or her work activities?

F. What is the person's ultimate career goal?

G. What does he or she think must be done to reach that goal?

ACTIVITY NO. 10

What demand will there be for this kind of job/career in ten years? You may be able to learn this from the person you observed on the job, but you should also research career information materials at the school or in the library.

ACTIVITY NO. 11

Use this page to answer other questions that you were interested in asking. (Maybe you wanted to know how the career affects the person's family life or whether he or she had once dreamed of doing something very different.) Your "answers" may be in the form of written material, photographs, tapes, or whichever way presents the information best. Caption any photographs you include. Use additional sheets as necessary.

ACTIVITY NO. 12

Review the information you gathered during your visit and job analysis and answer the questions listed below. You may (1) write your answers, (2) make a tape recording, or (3) make an oral presentation to a small group of your fellow students and your LC.

A. *What do you LIKE about the job you analyzed and why?*

B. *What do you DISLIKE about the job and why?*

C. *Would you be interested in this kind of job as a career? Why, or why not?*

D. *How would this job fit with the kind of life you hope to lead and with your personal values?*

WHEN YOU HAVE COMPLETED THIS GUIDE, TURN IT IN TO YOUR LEARNING COORDINATOR ALONG WITH ANY TAPES, PHOTOGRAPHS, AND ADDITIONAL PAGES YOU MAY HAVE.

Item 29

Experience-Based Career Education

CAREER ENTRANCE SKILLS CHECKLIST

STUDENT ______________________________ LC ______________________________

This checklist is an optional instrument for you to use when monitoring student progress in the areas listed below. Enter the name of the staff member or resource who verified the student's competence and the date of the performance evaluation.

CAREER ENTRANCE SKILLS	VERIFIED BY	DATE
The student has satisfactorily:		
1. obtained and evaluated information about current job openings, training or educational opportunities, and entry requirements.		
2. completed applications for employment or for admission to post-high school educational institutions.		
3. completed a real or simulated job or school admissions interview.		
4. written letters of inquiry or application.		
5. prepared a resume.		
6. acquired job-entry skills or experience in a chosen career field.		

Learning Coordinator's Comments:

Date

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Item 30

Experience-Based Career Education	STUDENT PROGRAM CHECKLIST

This checklist serves as a reference for reviewing a student's overall program and participation in EBCE. The Learning Coordinator may also use the checklist to bring problems to the attention of the EBCE Program Director.

STUDENT ______________________ LC ____________________ DATE ______________

	YES	NO
1. Does the student's program provide for pursuit of individual interests?		
2. Is the student making progress toward refining his/her long-term goals and plans?		
3. Is the student spending 50% of his/her time in project activities, including at least 30% of his/her time with RPs and ROs?		
4. Is the student working toward at least 25 EBCE credits this term?		
5. Is the student making satisfactory progress toward meeting graduation requirements he/she has planned to meet this term?		
6. Is the student enrolled in an external course? How many? __________		
7. Have all of the student's Project Plans been approved?		
8. Is the student working actively on all of his/her projects?		
9. Has a Diagnosis and Plan or other appropriate planning form been completed and approved for each of the student's supplementary learning activities?		
10. Is the student making satisfactory progress in supplementary learning activities?		
11. Has credit been assigned for projects or other work completed so far?		
12. Does the student's total set of project goals and indicators include some higher level cognitive objectives (beyond recall, comprehension levels)?		
13. Does the student regularly attend required advisory group meetings?		
14. Does the student regularly attend required project seminar meetings?		
15. Does the student complete required program forms and reports?		
16. Does the student keep his/her appointments and commitments to Resource Persons and Organizations?		
17. Does the student meet his/her own deadlines for projects and products?		
18. Has the student met EBCE minimum requirements in the following areas? (If not, what is being done?)		
Reading		
Writing		
Oral Communications		
Quantitative Skills		
Career Awareness		
Decision-Making		

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STUDENT PROGRAM CHECKLIST		Page 2 of 2		
		YES	NO	DON'T KNOW
18. Is the student expanding his/her knowledge and skills in the core curriculum areas? (If not, comment below. If you don't know, confer with the student to learn his or her own assessment in these areas.)				
BASIC SKILLS	Reading			
	Writing			
	Oral Communications			
	Quantitative Skills			
LIFE SKILLS	Interpersonal Skills			
	Problem-Solving			
	Decision-Making			
	Inquiry Skills			
CAREER DEVELOPMENT	Career Awareness			
	Self-Development			
	Career Decision-Making and Planning			
	Career Entrance Skills			

19. Is this student's participation in the program satisfactory to you: [ ]Yes [ ]No
(If yes, in spite of several negative answers above, give rationale. If not, what action do you recommend?)

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Item 31

Experience-Based Career Education	PROJECT SUMMARY REPORT	*Page 1 of 3*

Student ________________________ L.C. ________________________

Project Title ________________________ No. ____ Package ______________

SECTION I. What resources did you use? (Summarize information from Activity Reports)

NAME OF RESOURCE *(If you list an RP, include the company or organization)*	TYPE			LEVEL			HOURS SPENT
	RP	*RO*	*CR*	*O*	*E*	*I*	

SECTION II. Besides visiting resources, what other research did you do?

RESEARCH ACTIVITY *(Give description if not included above)*	HOURS SPENT

SECTION III. What products did you produce? List each product which you have completed and the person who will evaluate the product. (See Section B of Student Activity Reports for hours spent)

PRODUCT DESCRIPTION	HOURS SPENT	EVALUATOR

TOTAL HOURS SPENT VISITING RESOURCES *(Enter total from SECTION I)*	
TOTAL HOURS SPENT ON OTHER RESEARCH *(Enter total from SECTION II)*	
TOTAL HOURS SPENT PRODUCING PRODUCTS *(Enter total from SECTION III)*	
TOTAL HOURS SPENT ON THIS PROJECT	

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PROJECT SUMMARY REPORT - PROJECT EVALUATION

Page 2 of 3

Instructions to Student: Complete the student evaluation section below, summarizing what you have learned through this project and whether you are satisfied with the quality of your work. Be as specific as you can in the space provided. Then give the form to your Learning Coordinator and arrange a date for formal credit assignment.

AREAS TO BE EVALUATED	STUDENT'S EVALUATION	LC'S COMMENTS
Did you accomplish your goals to your satisfaction? State specifically what you did and did not accomplish, and why. (Refer to your goal numbers)		
Did other significant learning take place? State other subject matter, issues, and skills that you learned. Who can verify this learning?		
What career fields and jobs did you explore? Did you learn what you needed to know about them?		

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STUDENT PROJECT SUMMARY REPORT - PROJECT EVALUATION

Page 3 of 3

AREAS TO BE EVALUATED	STUDENT'S EVALUATION	LC'S COMMENTS
Did you improve some of your basic skills through this project? Which ones (reading, writing, oral communications, math)? How?		
How do you assess the quality of your work?	☐ Outstanding ☐ Very Good ☐ Acceptable ☐ Needs Work	☐ Outstanding ☐ Very Good ☐ Acceptable ☐ Needs Work
How much credit should you receive? In what subjects?		Comments:

CREDIT ASSIGNMENT

Subject	Credits	Quality of Work

I have reviewed the student's work and determined that the student should receive credit for the subject(s) and amounts indicated.

APPROVED:

________________________ Date __________

FWL-EBCE Rev.1/76

Item 32

Experience-Based Career Education	SUMMARY PROGRESS REPORT *(for Supplementary Learning Activities)*

This form is to be completed by the Skills Specialist, Tutor, or Workshop Leader.

STUDENT LC DATE

PREPARED BY POSITION SUBJECT AREA

1. WHAT RESOURCES WERE USED?
   - ☐ *Workshop: Title* ______ *Leader* ______
   - ☐ *Independent study using programmed instructional or standard textbook materials* *Title:* ______
   - ☐ *Tutoring by:* ☐ *Skills Specialist* ☐ *Peer* ☐ *Volunteer* ☐ *Paid Tutor* ☐ *Other (specify)* ______
   - ☐ *In combination with project: Title* ______
2. TOTAL NUMBER OF MEETINGS STUDENT ATTENDED: ______ AVERAGE LENGTH OF EACH: ______
   APPROXIMATE TIME SPENT IN RELATED STUDY: *(estimate in hours)* ______
3. SUMMARIZE THE STUDENT'S PROGRESS WITH REFERENCE TO DIAGNOSED NEEDS AND STATED OBJECTIVES. ______
4. HOW WAS STUDENT PROGRESS ASSESSED? *(tests, oral quizzes, etc.)* ______
5. TO WHAT EXTENT DID THE STUDENT MEET THE PERFORMANCE STANDARDS SET? ______
6. OTHER COMMENTS ON STUDENT'S WORK: *(Use additional page if necessary.)* ______
7. INDICATE THE CREDIT YOU THINK THE STUDENT SHOULD RECEIVE FOR THIS ACTIVITY:
   ______ *credits in* ______ *subject area*
8. QUALITY ASSESSMENT: ☐ *Outstanding* ☐ *Very Good* ☐ *Acceptable*
9.

CREDIT ASSIGNMENT	EBCE CREDITS	SUBJECT
RECOMMENDED - *Skills Specialist* *Signature* *Date*		
APPROVED - *Learning Coordinator* *Signature* *Date*		

Distribution: Original (White) - LC/files; Yellow - Student; Pink - Skills Specialist; Goldenrod - Tutor or Workshop Leader

NWL-EBCE Rev.1/76

Item 33

Experience-Based Career Education	CREDIT ASSIGNMENT SUMMARY

STUDENT GRADE LEVEL LC

REPORT FOR THE TERM: *From* *to*

TOTAL UNITS EARNED THIS TERM DATE

CREDIT DISTRIBUTION

PROJECTS COMPLETED *(list by title)*	SUBJECT AREA(S)	UNITS	QUALITY OF WORK
SUPPLEMENTARY LEARNING ACTIVITIES COMPLETED *(list by title)*			
TOTAL UNITS ASSIGNED			▨

APPROVED DATE

STAFF COMMENTS *(Use reverse side if necessary)*

*Signature*______________________________ *Date*____________________

Distribution: Original (White - permanent file; Yellow - LC/files; Pink - Student; Goldenrod - Parent

FWL-EBCE Rev.1/76

Supplementary Curriculum

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January 1976

Experience-Based Career Education Program
FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT
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This handbook was created by the FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT under contract to the National Institute of Education (NIE). The opinions expressed here do not necessarily reflect the opinion of NIE nor endorsement by any other government agency.

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Table of Contents

Page

INTRODUCTION 1

WHAT IT IS 1

HOW TO SET IT UP 3

Selecting and Orienting Tutors 4
Scheduling Activities 7
Selecting and Ordering Instructional Materials 8
Acquiring Information About External Courses and Programs 10
Arranging Workshops 10

HOW TO COORDINATE IT 12

Identifying Needs and Planning Activities 12
Monitoring Students' Progress 14
Assigning Credit 15

SUPPLEMENTARY CURRICULUM RECORDS SYSTEM 16

APPENDICES

1 - Summary of Supplementary Curriculum Forms 19
2 - Examples of Completed Diagnosis and Plan Forms 29
3 - Examples of Completed Workshop Descriptions 33

List of Exhibits

Page

Exhibit 1: Instructional Materials Maintained at Far West School 9

Exhibit 2: Forms Used in the Supplementary Curriculum Records System 22

Introduction

Working with adults in the community is the core of the student's educational program in Experience-Based Career Education (EBCE). An attempt is made to enable students to learn a very large proportion of what they need to know through their experiences at resource sites and discussions with their Learning Coordinators (LCs) and each other. However, there will always be some things students cannot learn that way. The purpose of the supplementary curriculum is to provide alternative learning activities to teach students skills and knowledge they cannot acquire through projects in the community.

What It Is

The supplementary curriculum is simply all those activities and instructional materials that supplement what students learn through their projects. It can include individual and small-group tutorials, workshops, courses and classroom discussion, programmed textbooks, cassette-tape instruction, and standard texts.

Tutoring can be one-to-one, or it can be in small groups where students have a common goal such as improving their writing skills, but work toward individualized objectives such as improving their paragraph structure, spelling skills, or vocabulary.

Workshops can be planned to meet an anticipated need or initiated by an expressed need. For instance, before school opens the staff may decide to offer a communications workshop to help students express themselves orally and in writing. Or part way through the term students may request such a workshop after some initial experiences have dramatized the importance of writing and oral communications. Workshops can be very short, lasting only one to three sessions, or they can continue for one or two terms, depending on what the students and workshop leader want to accomplish. Short-term workshops are useful to help students with such things as preparing for college entrance examinations or employment interviews. Workshops may be conducted by staff, tutors or Resource Persons, depending on their expertise and available time.

There are many kinds of external courses open to high school students: high school classes in physical education, foreign languages, English and math; vocational education courses; Red Cross classes; dance, crafts, and gymnastics instruction offered by the department of parks and recreation; and art classes run by museums and art schools. Colleges and universities also may allow high school students to take courses under special arrangements.

In addition to the supplementary activities described above, students can work through programmed or standard texts independently, with the help of a tutor, or with cassette tapes. These materials are especially useful for supplementing students' projects in math, foreign languages, and the sciences.

The kind and number of supplementary activities provided will vary. Initially, since the resource pool (the developed Resource Persons and Organizations in the community) will be small, the staff will have to fill in with alternatives until it can recruit enough resources in needed areas. As the resource pool grows, fewer alternatives will be needed and the curriculum can be adjusted accordingly. For example, when the program opens, students may take chemistry classes at a high school or community college until resources such as a water pollution control plant or a chemical analysis laboratory are developed.

The Skills Specialist is in charge of the supplementary curriculum. This person is responsible for setting it up and coordinating its use. The Skills Specialist is a learning facilitator. He* works directly with students, determining what their needs are, helping them select activities, setting attainable objectives, tutoring the students, evaluating their work, and recommending credit.† This staff person is also a supervisor and manager --

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* Throughout these volumes, we have generally used the masculine pronouns *he*, *him*, and *his* in instances where we obviously mean to refer to both male and female students, staff, or resources in the community. We were unable to find an alternative which was not cumbersome.

† Each student has to have one person to whom he can turn to as the final authority for what can and cannot be done. That person is the Learning Coordinator, who is ultimately responsible for the total educational program of each of his students. Therefore the Skills Specialist may advise students about supplementary learning activities, but the Learning Coordinator has to approve students' participation in them. See Learning Coordination for a more complete description of the LC role.

selecting and training tutors, overseeing their work with students, and coordinating students' use of all supplementary activities. (See Appendix 2 of Administration for a description of the role and qualifications of the Skills Specialist.) This handbook is addressed to you, the Skills Specialist, though it will be read by every member of the staff.

How to Set It Up

First, make some preliminary decisions:

- How many students will be enrolled? The more students you start with, the larger your supplementary curriculum will have to be; you will have to accommodate a greater range of needs and interests and will need more tutors to help you do so.

- What selection criteria will be used? Must students have completed certain course requirements in order to be admitted? Will they have to demonstrate a particular level of reading or math skill?

- What will be the composition of the student body? Sophomores, juniors, and seniors each have different needs. Seniors, for example, concentrate on electives and are more concerned with specific preparation for college or employment. Sophomores have all their graduation requirements to fulfill and have more time to explore a wide variety of careers, subjects, and issues.

- What are the students' graduation and college entrance requirements? These will vary from college to college, but the community colleges, state colleges, and universities can provide guidance.

- Where will the program be located? If it is placed in an existing high school, students can easily take advantage of facilities and programs there such as the library, mathematics and language arts laboratories, tutoring programs, and so forth.

- What is your budget? How much money do you have for instructional materials, tutors, books, diagnostic tests, and so forth? The less money you have to work with, the more you will have to rely on outside resources, classes, and facilities.

- What will be your tutor-to-student and workshop leader-to-student ratio? Obviously, the maximum number of students you want tutors and workshop leaders to work with will affect how many auxiliary staff you need.

Second, based on these decisions, anticipate your supplementary resource needs by identifying the subjects and skills students will probably need most and how you can best help them. Compare the resource pool to students' projected needs so that you can plan your supplementary curriculum to fill in where resources are lacking. Ask such questions as: What percentage of the student body is likely to need help with basic skills? What percentage plans to attend college? Unless you can rely heavily on other basic skills and foreign language programs, you can estimate needing about eight or nine tutors per 100 students: two or three in writing skills, two in reading, two in math, and two in foreign languages.

After the staff has a clear idea of its supplementary curriculum needs, you are ready to select and train tutors; schedule activities; select and order instructional materials; acquire information about other programs and courses and their enrollment procedures; and arrange workshops.

Selecting and Orienting Tutors

Public libraries, volunteer service bureaus, colleges, universities, and high schools are all potential sources of volunteer tutors. For example, the education departments of many colleges offer credit for tutoring. Some of these organizations may not have volunteer tutors available when you need them, but may help you recruit paid tutors either directly or through referrals. Far West School* hired tutors from the local colleges and universities under a work-study program. These tutors were paid in part (70%) by the university and in part (30%) by Far West. Some Resource Persons may be available for tutoring in addition to their other work with students, and EBCE students with the necessary interest and skills can tutor their fellow students.

Peer tutoring cannot be arranged until after the start of school when students' interests and abilities can be assessed. You will have to confer with each prospective peer tutor to determine his or her motives, skills, and knowledge. Students interested in helping others should understand what will be expected of them. For example, will peer tutors evaluate students' work, recommend credit,* and assess quality of work completed? If so, they have to be shown how to do this using clear criteria and standards. If not, peer tutors could be paired with older, more experienced tutors, or with the Skills Specialist, who will evaluate students' work and recommend credit. Perhaps, after working closely with another tutor for a term or two, the peer tutor would feel more comfortable doing it himself.

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* The Far West Laboratory's EBCE model was developed and tested at Far West School (FWS) in Oakland, California. Throughout this and other handbooks, the experiences of FWS staff and students are used to illustrate key points.

Selecting Tutors

Selection of tutors should be based on their agreement with the program's educational philosophy, their area(s) of expertise, experience, and available time. All tutors should understand the goals and purposes of EBCE and how these affect their role before selection takes place. The educational philosophy of the Far West Laboratory's EBCE model is described in the Program Overview. The main points to emphasize are:

Students decide, with the help of the staff, what they need and want to learn. This means that the tutors' efforts will be directed toward making recommendations to students, teaching them what they want to learn, and advising you and/or their Learning Coordinator of their progress.

Student work should be self-paced. This is important for all students. It's essential for those with a history of failure in a particular area who need to experience incremental success in acquiring basic skills. In such cases, tutors should begin with the student's strengths, take small steps, and give frequent and specific feedback about his success in completing each step. After the student has succeeded, the tutor can deal with skills requiring more effort -- again starting with those the student will learn most easily -- until the student is able to develop the skills and knowledge he needs. Other students with demonstrated talent in a particular area will be frustrated if not allowed to progress as rapidly as possible.

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* The recommendation would of course have to be approved by authorized staff.

Students' supplementary activities should be integrated with their project activities. Whenever appropriate, tutors, especially those teaching language arts and math skills, should have students bring their project plans and work into a tutorial. Students should realize that what they do and learn in the community is not separate from the skills they acquire through supplementary activities, but that those skills broaden the possibilities of what they can do with their resources. For instance, a student who is interested in acting and is working with an actor from a local repertory company will be able to see the relevance of improving his reading comprehension in order to better understand dialogue and interpret plays. If a student is being tutored in math skills that are not relevant to his project, he should at least be asked to identify the ways such skills are used at the various resource sites he visits.

Orienting Tutors to the Program

Orienting tutors to EBCE can take as long as three or four days or as little as half a day, depending on how much available time you have. If you have only half a day, you can explain in an hour the most important points about the program -- its goals, staff roles, key terms, and how the supplementary curriculum fits into the total program. The rest of the time can be used to summarize the supplementary curriculum, explain the tutor's role and responsibilities and show them how to use the various forms that will help them diagnose students' needs and record their progress. If you can allow three or four days for orientation, you can go into greater detail and spend more time with each individual.

Explain that tutors conduct individual and small-group instruction and workshops under your supervision. They help students improve their basic skills and teach them foreign languages and higher mathematics. They determine with the students what their specific needs are and state them in the form of objectives students can achieve. Together, they select the activities and materials used to meet these objectives and agree upon performance criteria for judging the quality of their work and for recommending credit. Tutors complete the forms which document their activities with students -- the Diagnosis and Plan or Workshop Description, Progress Reports, and the Summary Progress Report. (See Items 2, 3, 4, and 5 respectively in Appendix 1.) When problems arise (for example, if a student fails to make progress toward his objectives), tutors confer with the Skills Specialist and the student's Learning Coordinator about the nature of the problem and possible solutions.

In order to be able to work with students, tutors will have to be shown how to write objectives, set performance standards, report student progress, and recommend credit using the proper forms. Since you probably will not have time to give extensive preservice training to your tutors, you should work with them as closely as possible, especially during their first term at the school. Participate in initial diagnosis, review their comments on Diagnosis and Plan and Progress Report forms (see Appendix 2 for completed examples), and discuss with them the problems they are encountering, your observations, and preferred teaching methods. Be sure your tutors understand they should maintain close contact with you and with their students' Learning Coordinators -- for instance, informing both of you if the student repeatedly misses tutorial appointments. Tutors should also know that they can request a conference with you, a student, and his or her LC whenever they feel it is needed.

Scheduling Activities

Remember that students' participation in advisory groups and project seminars and their work with resources in the community should take priority over their supplementary activities. The best way to avoid conflicts is not to offer tutorial assistance when advisory groups and project seminars are scheduled. Since tutors will be available at set times, you can devise a schedule (similar to a college course list) listing the subject or skill to be taught, the tutor, and meeting times. In planning their programs, students can then work a desired tutorial or workshop into their schedule of activities. (Trying, conversely, to schedule an activity when interested students are available becomes an unmanageable task.)

When planning your tutoring schedule for the term, remember that college students working as part-time tutors will have midterm and final examinations.

Find out when these are administered and be sure your tutors inform their students ahead of time and prepare assignments for them to complete during the tutor's absence. In some instances, you, another tutor, or other staff member may have to substitute.

Selecting and Ordering Instructional Materials

You will not need an extensive collection of materials, but should include career guidance information and texts on subjects students need for high school graduation or college entrance (for example, foreign languages, basic skills, mathematics, and the physical, biological, and social sciences). If your program is located in an existing high school, many of these materials may already be available in the library, in a language or mathematics lab, or through the appropriate department. If so, their use should be coordinated and supervised to ensure that students' needs and program objectives are being met. If your program is located in a separate facility, it is important that necessary materials are on hand. However, do not try to duplicate a library; it is impractical and unnecessary. Students can and should use the public library. Some recreational reading should be on hand for students for such times as when they're awaiting a return call from a resource. Used paperbacks can be picked up fairly cheaply at thrift stores, flea markets, used book stores, or library book sales.

The instructional materials you select should meet as many of the following criteria as possible. They should

- be usable in solitary, tutorial, or small-group situations;
- make use of multimedia or audio-visual approaches (as appropriate);
- utilize programmed sequences keyed to diagnostic and performance tests;
- be self-paced;
- stipulate performance objectives; and
- include pre, post, or progress tests.

Each item is not likely to have every one of these qualities; so when choosing between two similar items, select the one with the greatest number. Exhibit 1 lists the kinds of instructional materials maintained at Far West School.

Exhibit 1

Instructional Materials Maintained at Far West School

ITEM	DESCRIPTION
PROGRAMMED TEXTS	French *(I and II)*, Spanish *(I and II)*, algebra, geometry, and trigonometry
CASSETTE TAPES	To accompany programmed texts
STANDARD TEXTS	Those used by the Oakland public high schools as well as others chosen by the Skills Specialist for quality of subject matter presentation Subjects covered at varying levels were science, English, world studies, U.S. history, American government and related social sciences, mathematics, and foreign languages
REFERENCE MATERIALS	English and foreign language dictionaries Dictionary of Occupational Titles Books listing and describing colleges and universities, their requirements, and course offerings Information about college entrance tests, scholarships, loans and grants General Educational Development (GED) books SRA Occupational Briefs College catalogs
PERIODICALS	Subscriptions to a local daily newspaper and high interest magazines *(news magazines, Psychology Today, National Geographic, Scientific American, Saturday Review, etc.)*

C00

Acquiring Information About External Courses and Programs

Wherever your EBCE program may be located, you ought to use as many of the community's other programs and facilities as appropriate so that your energies and budget will go as far as possible. It is easier to take advantage of such high school programs as language arts laboratories when you are part of the same school.

If, however, EBCE is separate, try to arrange for your students to use the facilities of one or more of the other schools to meet special needs. The kinds of classes and programs students may need include driver's education, language arts laboratories for reading and writing skills and foreign languages, mathematics laboratories, team sports, and band, orchestra and choral music. You need to learn what procedures students should follow for enrolling and descriptions of classes they will be allowed to take. It is wise to request written enrollment procedures, since misunderstandings can result in a student's loss of credit.

Eligibility requirements and enrollment procedures for community college and university extension courses can be obtained from each school's dean of students. In Oakland, junior and senior high school students could take community college courses and receive either college or high school credit. Colleges and universities in your community may have different options available to students. It is also possible they may not presently allow high school students to enroll at all -- in which case you may wish to try to arrange such a program for them. Enrollment in college courses would give students an opportunity to experience college before deciding whether to pursue a college education.

Next, find out what your community offers. Organizations such as the Red Cross, YMCA and YWCA, the department of parks and recreation, and other social and welfare agencies offer a variety of classes and workshops. Find out what they are, when they meet, and who handles enrollment in them.

Arranging Workshops

Workshops require little or no special preparation before school opens. If you think students will need a particular kind of workshop, set a date for the first meeting. If not really needed, it can be cancelled. Such preplanned workshops -- in Spanish, French, or geometry, for example -- have fairly standard objectives which you can develop before the first meeting and hand out to students then. Because students requesting a workshop should be involved in determining its objectives, you cannot finalize its objectives or meeting times until the first or second session. These as-needed workshops help students with such things as preparing for employment interviews, college entrance tests, job seeking, or resumé writing.

* * *

Before discussing how to manage the supplementary curriculum, a few words should be said about some of the policy decisions the EBCE staff will have to make about using it. Because students are shy and uncertain of themselves and because planning a project is harder to do than attending a class or a tutorial, some will want to devote most of their energy to external classes, tutorials, and workshops. Therefore, as a staff you need to decide the extent to which students will be allowed to immerse themselves in supplementary activities. A decision about whether to allow a student to participate in a supplementary activity has to be made on an individual basis. It may be perfectly appropriate for one student to take a biology course at a community college and not for another if the one has a full program of project activities with resources and the other has yet to complete his first project. The alternatives below are offered only as general guidelines. (See Learning Coordination for further discussion of criteria for an acceptable student program.)

- Limit the number of supplementary activities a student may participate in at any one time.
- Establish a proportion of time students must spend on projects and resource activities and the consequences for not doing so.
- Require all supplementary activities to be related to a project.
- Limit the number of external classes a student may enroll in during one term.
- Allow exceptions to any of the above only with a written waiver from the Learning Coordinator.

These decisions must be made before school opens so that students will know what is expected of them.

How to Coordinate It

Identifying Needs and Planning Activities

When a student sends or brings you a request for help, you begin by pinpointing the area where help is needed. If the student has never had Spanish and needs it for college entrance, then you can explain to him the different ways he might learn it. He might, for example, be able to choose between a workshop, a community college class, or self-instruction using a text and cassette tapes. With this type of request your task is simple. On the other hand, the student may need help with his math skills, in which case you must determine what he already knows, what he still does not understand or do well, and what he has yet to learn. The student may just need some brushing up on his fractions before he can proceed to algebra or in order to pass an eighth-grade proficiency test the district requires for graduation. Or he may be having trouble with several mathematical operations such as multiplication and division of whole numbers, computation of fractions and decimals, and conversion of fractions to percentages.

A student's needs affect the activities and learning strategies you choose. For example, the student who only needs a quick review of basic math in order to pass a proficiency test before beginning algebra will probably want to spend as little time as he can on the material, may need very little assistance, and will want to work alone since a group would probably slow him down. The student who, in essence, has to master all the operations of basic math would probably benefit from being in a group with other students who have a similar need.

To pinpoint a student's needs you will have to talk to the student, and perhaps administer some diagnostic tests or end-of-chapter exams from a textbook; ask for a writing sample or assign a brief essay; and confer with his Learning Coordinator and others to determine what skills the student already has and what his specific strengths and weaknesses are. Once you know where he needs help, then you can inform him of the alternative activities from which he can choose. When the student has made his choice, you can plan specific activities and set objectives and performance criteria.

Individual activities are planned using the Diagnosis and Plan (Appendix 1, Item 2). You (or the tutor) and the student -- perhaps the three of you together -- have to determine what materials you will use, where to begin, what the specific objectives will be, and what criteria will be used in judging the student's work. You also need to decide whether this work will be worth any credit and, if so, how much. Appendix 2 contains examples of the completed Diagnosis and Plan form, which records such decisions. The information given on this form will be the basis for evaluating the student's work and for awarding him credit, so it should be very specific.*

The Workshop Description (Appendix 1, Item 3) is comparable to the Diagnosis and Plan but is used when several students (anywhere from three to 20) have the same need and will be working toward common objectives. Descriptions for preplanned workshops, such as Spanish, can be written up in advance. For these workshops you know the students will be starting at one point and working toward another. For as-needed workshops, such as one to prepare students for job interviews, you need to confer with the students before you complete the Workshop Description so their particular needs and expectations can be taken into account.

The Learning Coordinator must approve his student's participation in a supplementary activity. Only the Learning Coordinator is aware of his student's whole program and will know if the student is planning more activities than he can handle or if he has requested an unnecessary activity. For instance, the student may have planned projects and supplementary activities to earn 25 credits while the district will allow no more than 20 credits in any one term. Or the student may have requested a writing skills tutorial and have planned a project with a journalist; with the proper planning he could get the help he needs from the jounalist and not need the tutorial. So be sure to send a copy of the students' Diagnosis and Plan to the Learning Coordinator and circulate lists of workshop enrollees after the first meeting, so that LCs can assure that students' activities are appropriate and that their records are complete.

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* Norman E. Gronlund's Stating Behavioral Objectives for Classroom Instruction (MacMillan, 1970) provides a useful model for writing tutorial and workshop objectives.

Monitoring Students' Progress

Students and staff need to know what students are learning, how well they are progressing toward their objectives, and the problems they are encountering. Tutors, workshop leaders, and the Skills Specialist record their observations and report test results or other evidence of students' progress on the Progress Report (Appendix 1, Item 4) at least once a month. In this way they inform Learning Coordinators of students' successes as well as problems.

When a student is having trouble he will make little progress toward his objectives and may not even attend or participate in the planned activity. This may happen when the student does not feel comfortable with his tutor; is not matched with an appropriate learning strategy; is not receiving enough individual help; has planned too heavy a workload; lacks interest in the subject or the materials being used; or doesn't see the importance of what he is trying to learn. Finding the cause of the problem often requires a conference between the student, Learning Coordinator, Skills Specialist, and tutor or workshop leader. Possible solutions include changing the supplementary activity (for example, dropping a community college class and taking a workshop instead); helping the student revise his objectives; providing additional assistance such as extra tutorial help to accompany his workshop participation; or dropping or postponing his participation in this or some other activity.

Remember to gear yourself to the student's learning style. Some students will need a lot of attention from you because they lack self-confidence and the ability to work independently. They have to take very small steps and be assured of success before they can continue. Others can and like to work with as little assistance as possible, coming to you only with specific problems or for a new assignment.

When the student has completed the activity, his efforts and your observations should be summarized and reported to the Learning Coordinator along with a credit recommendation on the Summary Progress Report (Appendix 1, Item 5). This form is used for all supplemental activities except external courses. When students complete external courses, comments and recommended credit can be recorded on the bottom section of the External Course Description (Appendix 1, Item 6). Most places offering classes have their own reporting procedures which are sufficient to meet staff needs. If not, Learning Coordinators are responsible for obtaining progress reports on their students, using methods similar to those used for students' resource site activities. (See the section on progress monitoring in Learning Coordination.)

Assigning Credit

Review the credit assignment section of Learning Coordination for an overview of the process, including the factors to be considered when awarding credit for projects. Many of the same factors should be weighed in assigning credit for supplementary learning activities.

The development of credit criteria requires careful planning. It will be easier to develop standards for skills development workshops such as typing or basic math than for those such as English composition. Apply standards comparable to those for a course. Talk to instructors and review standard texts to get an idea of what students should know in order to receive a term's worth of credit (5 EBCE credits for the equivalent of a semester's course). The examples of completed Workshop Descriptions in Appendix 3 should give you some guidance, too.

For individualized activities you will have to rely in part on time, on how much material was covered, and on the significance of the learning to the student. If the student's objectives were well-stated on the Diagnosis and Plan and the performance standards were clear, credit assignment should follow naturally based on the Progress Reports.

Credit to be received for satisfactory completion of an external course must be agreed upon in advance and recorded on the External Course Description. Upon completion of the course the Learning Coordinator then assigns EBCE credit for it on the basis of reports obtained from the instructor, and according to the student's project plan and products, if appropriate. If the organization offering the course does not report credits earned or grades, the Learning Coordinator will have to contact the instructor to get an assessment of the student's work.

Students can combine supplementary activities with their project work in order to obtain credit to meet a requirement. For example, a student can work with a tutor to learn how to write term papers by using project products rather than new assignments. The student should write early drafts of his term paper for the tutor to review. The final draft will be judged against the writing skills objectives he established with the tutor and according to the progress it shows he has made. (This paper will also be assessed by the student's Learning Coordinator as part of his project's evaluation.)

Tutors, workshop leaders, and the Skills Specialist recommend credit and assess the quality of students' work on the Summary Progress Report. Learning Coordinators must approve their recommendation. If a Learning Coordinator questions the amount of credit recommended or the quality assessment, he or she should confer with the tutor or workshop leader, the Skills Specialist, and the student. See Learning Coordination for a discussion of procedures to follow when a student disputes a Learning Coordinator's assignment of credit.

Supplementary Curriculum Records System

You need records about currently available activities as well as documentation of students' participation in past ones. This means you ought to have a file on external courses -- what institutions offer them, descriptions, eligibility requirements, and enrollment procedures. A 3" x 5" card file, arranged alphabetically by organization, allows you to make changes easily. If students can enroll in classes at local colleges, you ought to obtain current catalogs for reference. You will also need a list of the instructional materials on hand and those that have been ordered. Some type of check-out system should be set up so that you and others will know which student is using what text or cassette tape in case another student needs it or in the event that it's lost. In addition to these materials you should compile a list of resources students can use at other high schools and local colleges, with instructions on who to contact, and prerequisites and procedures for obtaining or using the resource. Keep your descriptions of active and inactive workshops, too. A workshop held one term may be reorganized later, and you might be able to use all or part of the old Workshop Description when writing a new one.

The Skills Specialist must have information about tutors: their names, addresses, telephone numbers, areas of expertise, schedules of availability, and status (work-study, volunteer, peer, active, inactive). Again, since you will probably be constantly revising this information, a card catalog is the handiest kind of file. It will be helpful to arrange it alphabetically by tutor's name and then cross-reference it so you can find a tutor by subject when you need to.

The Skills Specialist's copies of completed supplementary curriculum forms can be filed in notebooks, one for each LC, arranged alphabetically by student. This makes it easy to talk to each Learning Coordinator about his students' participation in supplementary learning activities. Two rosters -- one listing tutors and their students, the other listing workshops, leaders and participants -- will have to be developed every term. This information is important in case a substitute has to take over and so you will know who is scheduled to be doing what, with whom, and when. Learning Coordinators and other staff need such information from time to time, either to report to parents or so they can stay abreast of what their students are doing. You also ought to have a rundown of which students are enrolled in what classes at which institutions. All of this information is valuable only when it is current. Data from previous terms can be reduced to statistics summarizing the numbers of students who were enrolled in various workshops, tutorials, external classes, or other activities and used for future planning.

Depending on district or school requirements, you may also need to devise some system not only for noting but reporting student attendance in each planned activity on a daily or weekly basis. If necessary, a little research into how teachers in your school system manage this adminstrative burden will save wasted effort.

Appendices

Appendix 1

Summary of Supplementary Curriculum Forms

The forms described below were used in the FWL-EBCE program to record and report information related to supplementary learning activities. Exhibit 2, which follows, summarizes suggested reporting requirements for these activities. Samples of each of the forms are provided in Items 1 through 6. Distribution of forms, which are usually printed in multiple colored copies, is indicated at the bottom of each.

Item 1: Request for Supplementary Assistance

The upper part of the form is completed by the student and Learning Coordinator when a need has been identified. The lower portion is completed by the Skills Specialist. When the request has been acted upon, the Skills Specialist returns the original to the LC, keeps a copy, and, when appropriate, sends one to the tutor or workshop leader. The Learning Coordinator should review the form before filing it to be sure the activity chosen meets the student's needs and is consistent with his total program. If a potential problem is identified, the LC should consult both the student and the Skills Specialist.

Item 2: Diagnosis and Plan

This form is completed by the Skills Specialist or tutor for each student who will receive individual or small-group help, and by a workshop leader for student workshop participants who will pursue individualized objectives in addition to the general objectives of the workshop. It records the student's diagnosed need, and the agreements reached with the student on objectives, performance standards, and credit. (The Skills Specialist must approve plans involving credit if prepared by others.) The Skills Specialist sends the original to the Learning Coordinator, who reviews, initials, and dates it, and places it in the student's current file. Copies go to the student and tutor or workshop leader, and the Skills Specialist's file.

Item 3: Workshop Description

Primarily a planning form for workshop leaders, the Workshop Description is used to describe the objectives and methods of a workshop, including the basis of credit assignment, if any, for the workshop. Whenever possible, this form is completed after discussing objectives and performance criteria with the workshop participants. The last section of the form provides space for students to report their participation and evaluate the workshop. After completing this section, the student submits the form to his Learning Coordinator, who keeps it in the student's file. It is used as part of the documentation for credit assignment along with the Summary Progress Report. The Skills Specialist also keeps a copy. Student evaluations of the workshops may be summarized and discussed with the workshop leader if it might be offered again in the future.

Item 4: Progress Report

This form is used by the Skills Specialist, a tutor, or a workshop leader to report the student's progress in a supplementary learning activity (except for very brief workshops and external courses which require other means of obtaining such information). It is completed monthly, or more often if the student is having difficulty. The Skills Specialist keeps a copy, one copy is for the tutor or workshop leader, one for the student, and the original goes to the student's Learning Coordinator, who reviews (and files) it, and discusses the reported progress or problems with the student, as appropriate.

Item 5: Summary Progress Report

This form is used to summarize the student's progress upon completion (or termination) of supplementary learning activities other than external courses. It reports the student's performance, recommends credit, and records a quality assessment. It is completed by the Skills Specialist, or by the tutor or workshop leader and approved by the Skills Specialist. Copies are given to the Learning Coordinator for his review, approval, and filing and to the student, the Skills Specialist, and the tutor or workshop leader.

Item 6: External Course Description

Students complete this form for any external courses in which they plan to enroll. Community college courses, Red Cross courses, community center classes, or adult education classes are all considered external courses. Students state their reasons for taking the course and include a description of it. The Learning Coordinator must approve all external courses by signing the External Course Description. The Learning Coordinator keeps this form in the current file, gives a copy to the student, and sends one to the Skills Specialist. When the student has completed the course and the Learning Coordinator has received a final report from the instructor, he approves the assignment of EBCE credit.

Exhibit 2

Forms Used in the Supplementary Curriculum Records System

ITEM	TITLE	COMPLETED BY	WHEN COMPLETED
1	Request for Supplementary Assistance	*(a)* Upper section - Learning Coordinator and student *(b)* Lower section - Skills Specialist	*(a)* Whenever supplementary assistance is needed *(b)* When request is acted upon
2	Diagnosis and Plan	Skills Specialist, tutor or workshop leader with student's knowledge and agreement; Learning Coordinator must approve	Completed during or just after first meeting to plan activities; select materials; and set objectives and performance standards for tutorials, for independent study using programmed text, and for some workshops if student will be doing additional work
3	Workshop Description	*(a)* Upper sections - workshop leader *(b)* Evaluation section - student	*(a)* After objectives, performance criteria are determined *(b)* By end of workshop
4	Progress Report	Skills Specialist, tutor, or workshop leader	At least once monthly as long as supplementary activity continues; more frequently if student is having problems
5	Summary Progress Report	Skills Specialist, tutor or workshop leader; Learning Coordinator must approve recommended credit	When student completes supplementary activity *(except external course)*
6	External Course Description	*(a)* Upper section - student *(approved by Learning Coordinator)* *(b)* Lower section - Learning Coordinator	*(a)* Prior to enrolling in course *(b)* Upon completion of course

Item 1

Experience-Based Career Education	REQUEST FOR SUPPLEMENTARY ASSISTANCE

Note to Learning Coordinator: Give the form with the top section completed to the Skills Specialist. A copy of the form with the bottom section completed will be returned to you when action has been taken. Please use a separate form for each request.

ASSISTANCE IS NEEDED IN THE FOLLOWING SKILL OR SUBJECT AREA:

____

____

NAME OF STUDENT: ____________________________

TYPE OF ACTIVITY PREFERRED:
- ☐ *tutorial*
- ☐ *workshop*
- ☐ *external course*
- ☐ *independent study using programmed materials*

DAYS AND HOURS PREFERRED: ________________________

LC APPROVAL ____________________ DATE __________
(signature)

TO STUDENT AND LEARNING COORDINATOR:

☐ YOUR REQUEST HAS NOT BEEN FILLED BECAUSE ________________

____

____

☐ YOUR REQUEST HAS BEEN FILLED:

TUTOR *(name)* ____________________ DAYS AND HOURS __________

WORKSHOP LEADER *(name)* ____________________ __________

EXTERNAL COURSE *(title)* ____________________ PLACE __________

REMARKS: ________________________________

____

SKILLS SPECIALIST ____________________ DATE __________
(signature)

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Distribution: Original (White), Pink, and Goldenrod - Skills Specialist; Yellow - student files. After bottom section is completed, return White to LC. When appropriate give Goldenrod to tutor or workshop leader.

Item 2

Experience-Based Career Education

DIAGNOSIS AND PLAN
(for Supplementary Learning Activities)

This form is to be completed by the Skills Specialist, Tutor, or Workshop Leader to record the needs and objectives of individual students.

STUDENT LC DATE

PREPARED BY POSITION

1. WHAT IS THE STUDENT'S GENERAL NEED? *(e.g., basic math, chemistry, oral communications)*

2. WHAT DIAGNOSTIC STEPS DID YOU TAKE TO DETERMINE THE STUDENT'S SPECIFIC NEEDS AND DIFFICULTIES? *(e.g., test, interview, written assignment)*

3. WHAT ARE THE STUDENT'S SPECIFIC NEEDS (RESULTS OF DIAGNOSIS)?

4. IDENTIFY LEARNING ACTIVITIES SELECTED:

	Workshop
Tutorial	*Independent Study*
Materials	*Other*

REASON:

5. HOW WILL THESE ACTIVITIES BE INTEGRATED WITH THE STUDENT'S PROJECT(S)?

6. OBJECTIVES AND PERFORMANCE STANDARDS AGREED UPON WITH STUDENT:
(Use additional page if necessary.)

7. AMOUNT OF CREDIT YOU AND THE STUDENT PROPOSE FOR THE SUCCESSFUL COMPLETION OF THIS WORK:
______ *credits in* ______ *subject area*

8. SCHEDULE OF APPOINTMENTS OR WORKSHOPS WITH ______
(Tutor/Workshop Leader)
DAYS ______ TIMES ______ DATES: FROM ______ TO ______

SKILLS SPECIALIST'S APPROVAL ______ DATE ______

LEARNING COORDINATOR'S APPROVAL ______ DATE ______

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Distribution: Original (White) - LC files; Yellow - student; Pink - Skills Specialist; Goldenrod - Tutor or Workshop Leader

Item 3

Experience-Based Career Education

WORKSHOP DESCRIPTION

SUBJECT/SKILL AREA ____________________ WORKSHOP LEADER ____________________

MEETING DATES ____________________ TIME ____________________

OBJECTIVES FOR STUDENTS ____________________

METHODS OR STRATEGIES: *(lecture, discussion, exercises, simulations, etc., and materials to be used)*

TOTAL NUMBER OF MEETINGS PLANNED ____________ APPROXIMATE LENGTH OF MEETINGS ____________

CREDITS OFFERED *(if any)*: ____________ *(number)* CREDITS IN ____________ *(subject area)*

BASIS FOR CREDIT ASSIGNMENT: *(completion of above objectives, individualized objectives, participation in meetings, other)* ____________________

STUDENT EVALUATION OF WORKSHOP: *Please use the space below to evaluate this workshop, indicating what you learned, liked or disliked, etc., and return this form to your Learning Coordinator for your file. Use additional pages if necessary.*

STUDENT'S NAME ____________________ NO. OF WORKSHOP MEETINGS ATTENDED ____________ LC ____________

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Distribution: Original (White) - LC/files; Yellow - Student; Pink - Skills Specialist; Goldenrod - Tutor or Workshop Leader

Item 4

Experience-Based Career Education

PROGRESS REPORT
(for Supplementary Learning Activities)

This form is to be completed by the Skills Specialist, Tutor, or Workshop Leader to report student progress monthly, or more frequently, as necessary.

STUDENT DATE • PROGRESS REPORT NO.

LC SUBJECT AREA

PREPARED BY POSITION

1. WHAT ACTIVITIES HAVE YOU AND THE STUDENT ENGAGED IN DURING THE PAST FOUR WEEKS? WHICH OBJECTIVES WERE YOU TRYING TO ACCOMPLISH?

2. RECORD ANY CHANGES IN DECISIONS MADE (E.G., DIAGNOSIS, OBJECTIVES, STANDARDS) AS STATED ON THE DIAGNOSIS AND PLAN OR WORKSHOP DESCRIPTION.

3. DESCRIBE THE STUDENT'S PROGRESS WITH REFERENCE TO STATED OBJECTIVES.

4. DESCRIBE THE STUDENT'S EFFORT TOWARD THESE STUDIES:

   [ ] *little effort* [ ] *steady effort* [ ] *outstanding effort*

   COMMENTS: ____

5. INDICATE THE STUDENT'S ATTENDANCE:
   - *a. How many scheduled meetings did you have with the student?* ____
   - *b. How many appointments did the student keep?* ____
   - *c Did the student let you know when he or she could not attend?* ____

6. WHAT ADDITIONAL COMMENTS DO YOU HAVE ABOUT THE STUDENT'S WORK?

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Distribution: Original (White) - LC/files; Yellow - student; Pink - Skills Specialist;
Goldenrod - Tutor or Workshop Leader

Item 5

Experience-Based Career Education	SUMMARY PROGRESS REPORT *(for Supplementary Learning Activities)*

This form is to be completed by the Skills Specialist, Tutor, or Workshop Leader.

STUDENT LC DATE

PREPARED BY POSITION SUBJECT AREA

1. WHAT RESOURCES WERE USED?

☐ *Workshop: Title*______________________ *Leader*____________________

☐ *Independent study using programmed instructional or standard textbook materials*

*Title:*____

☐ *Tutoring by:* ☐ *Skills Specialist* ☐ *Peer* ☐ *Volunteer* ☐ *Paid Tutor*

☐ *Other (specify)*______________________________

☐ *In combination with project: Title*______________________________

2. TOTAL NUMBER OF MEETINGS STUDENT ATTENDED:________ AVERAGE LENGTH OF EACH:__________

APPROXIMATE TIME SPENT IN RELATED STUDY: *(estimate in hours)* ______________

3. SUMMARIZE THE STUDENT'S PROGRESS WITH REFERENCE TO DIAGNOSED NEEDS AND STATED OBJECTIVES.____

4. HOW WAS STUDENT PROGRESS ASSESSED? *(tests, oral quizzes, etc.)*______________

5. TO WHAT EXTENT DID THE STUDENT MEET THE PERFORMANCE STANDARDS SET?

6. OTHER COMMENTS ON STUDENT'S WORK: *(Use additional page if necessary.)*

7. INDICATE THE CREDIT YOU THINK THE STUDENT SHOULD RECEIVE FOR THIS ACTIVITY:

______________ *credits in* ______________________ *subject area* .

8. QUALITY ASSESSMENT: ☐ *Outstanding* ☐ *Very Good* ☐ *Acceptable*

9.

CREDIT ASSIGNMENT	EBCE CREDITS	SUBJECT
RECOMMENDED - *Skills Specialist* *Signature* *Date*		
APPROVED - *Learning Coordinator* *Signature* *Date*		

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Distribution: Original (White) - LC/files; Yellow - student; Pink - Skills Specialist; Goldenrod - Tutor or Workshop Leader

Item 6

Experience-Based Career Education

EXTERNAL COURSE DESCRIPTION

STUDENT ____________________ LEARNING COORDINATOR ____________________

SCHOOL OR AGENCY OFFERING COURSE ____________________

____

COURSE TITLE ____________________ INSTRUCTOR ____________________

CREDIT OFFERED BY SCHOOL OR AGENCY: ________ *Semester units;* ________ *Quarter units*

CLASS DAYS AND TIMES ____________________

SEMESTER OR QUARTER DATES: *From* ____________ *through* ____________

COURSE DESCRIPTION *(from school or agency catalog)* ____________________

____

____

YOUR REASON(S) FOR TAKING THIS COURSE: ____________________

____

____

CREDIT ANTICIPATED: ____________ *EBCE units*

IS THIS COURSE PART OF A PROJECT?

[ ] YES *(Attach completed form to Project Plan.)* [ ] NO *(Explain reason below.)*

____

____

EBCE CREDITS TO BE EARNED: ________ *credits in* ____________________ *subject area*

LEARNING COORDINATOR'S APPROVAL ____________________ DATE ____________

(NOTE: EBCE DIRECTOR'S APPROVAL IS REQUIRED FOR MORE THAN ONE COURSE PER SEMESTER.)

EBCE DIRECTOR'S APPROVAL *(if needed)* ____________________ DATE ____________

EBCE CREDIT ASSIGNMENT

FINAL GRADE OR QUALITY ASSESSMENT RECEIVED FROM INSTRUCTOR ____________________

EBCE CREDITS APPROVED: *Subject* ____________________ *Credits* ____________

LEARNING COORDINATOR'S SIGNATURE ____________________ DATE ____________

REMARKS ____________________

____

NOTE: Five (5) EBCE credits will usually be given for a three (3) semester unit community college course.

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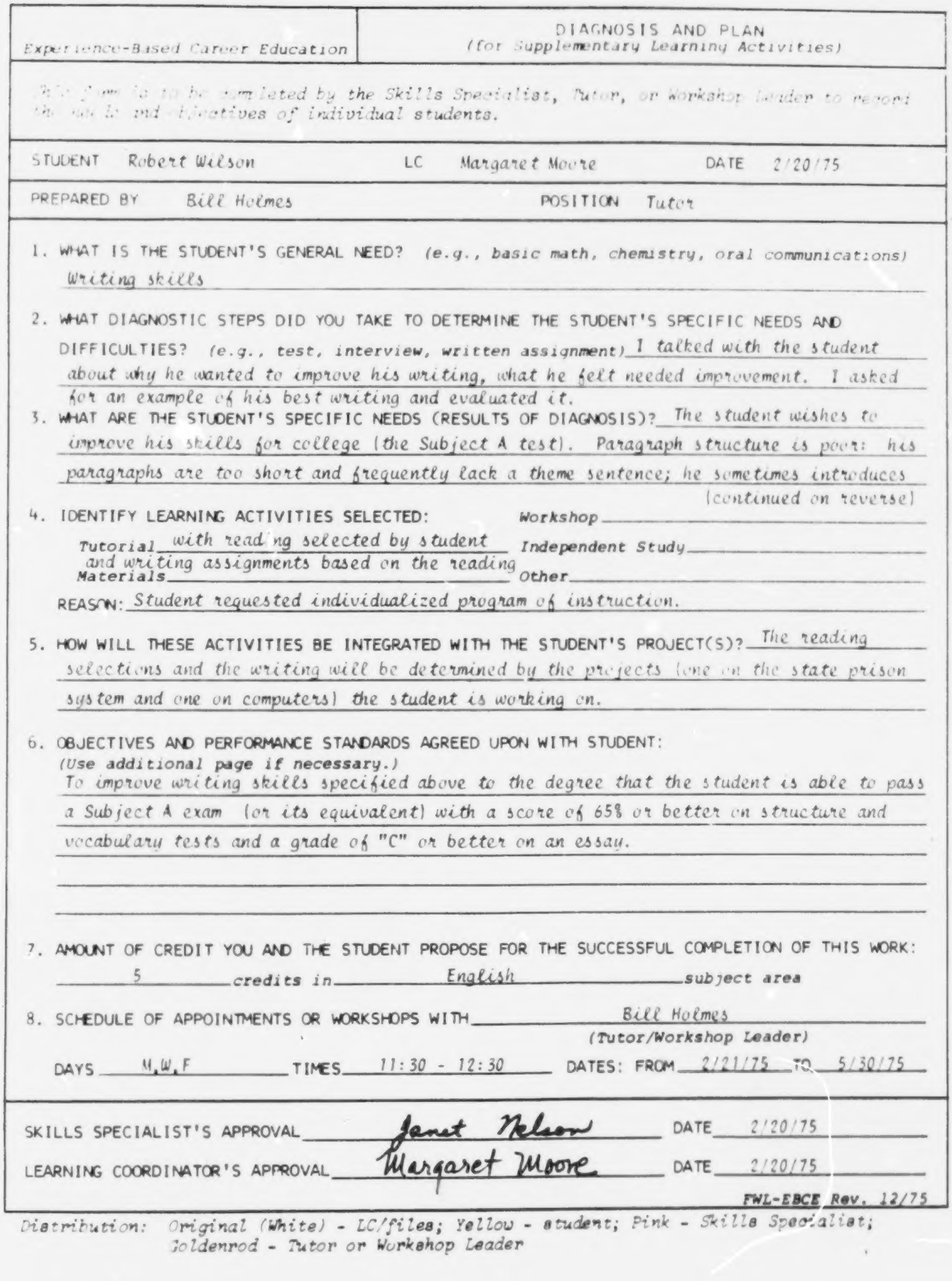
Distribution: Original White - [illegible]; Yellow - Student; Pink - Skills Specialist

Appendix 2

Examples of Completed Diagnosis and Plan Forms



Experience-Based Career Education

DIAGNOSIS AND PLAN
(for Supplementary Learning Activities)

This form is to be completed by the Skills Specialist, Tutor, or Workshop Leader to record the needs and objectives of individual students.

STUDENT *Robert Wilson* LC *Margaret Moore* DATE *2/20/75*

PREPARED BY *Bill Holmes* POSITION *Tutor*

1. WHAT IS THE STUDENT'S GENERAL NEED? *(e.g., basic math, chemistry, oral communications)* *Writing skills*

2. WHAT DIAGNOSTIC STEPS DID YOU TAKE TO DETERMINE THE STUDENT'S SPECIFIC NEEDS AND DIFFICULTIES? *(e.g., test, interview, written assignment)* *I talked with the student about why he wanted to improve his writing, what he felt needed improvement. I asked for an example of his best writing and evaluated it.*

3. WHAT ARE THE STUDENT'S SPECIFIC NEEDS (RESULTS OF DIAGNOSIS)? *The student wishes to improve his skills for college (the Subject A test). Paragraph structure is poor: his paragraphs are too short and frequently lack a theme sentence; he sometimes introduces (continued on reverse)*

4. IDENTIFY LEARNING ACTIVITIES SELECTED:

Tutorial *with reading selected by student* *Workshop*
and writing assignments based on the reading *Independent Study*
Materials *Other*

REASON: *Student requested individualized program of instruction.*

5. HOW WILL THESE ACTIVITIES BE INTEGRATED WITH THE STUDENT'S PROJECT(S)? *The reading selections and the writing will be determined by the projects (one on the state prison system and one on computers) the student is working on.*

6. OBJECTIVES AND PERFORMANCE STANDARDS AGREED UPON WITH STUDENT:
(Use additional page if necessary.)
To improve writing skills specified above to the degree that the student is able to pass a Subject A exam (or its equivalent) with a score of 65% or better on structure and vocabulary tests and a grade of "C" or better on an essay.

7. AMOUNT OF CREDIT YOU AND THE STUDENT PROPOSE FOR THE SUCCESSFUL COMPLETION OF THIS WORK:
5 *credits in* *English* *subject area*

8. SCHEDULE OF APPOINTMENTS OR WORKSHOPS WITH *Bill Holmes*
(Tutor/Workshop Leader)

DAYS *M,W,F* TIMES *11:30 - 12:30* DATES: FROM *2/21/75* TO *5/30/75*

SKILLS SPECIALIST'S APPROVAL Janet Nelson DATE *2/20/75*

LEARNING COORDINATOR'S APPROVAL Margaret Moore DATE *2/20/75*

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Distribution: Original (White) - LC/files; Yellow - student; Pink - Skills Specialist;
Goldenrod - Tutor or Workshop Leader

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3. RESULTS OF DIAGNOSIS *(continued)*

a new idea in the middle of a paragraph. His writing is not well organized: he does not state the purpose of his paper in the introduction, and he repeats ideas and explanations in several sections. He makes assumptions about what the reader already knows that shouldn't be made. He poses questions without answering them. He has a limited vocabulary and frequently misuses words.

Experience-Based Career Education

DIAGNOSIS AND PLAN
(for Supplementary Learning Activities)

This form is to be completed by the Skills Specialist, Tutor, or Workshop Leader to record the needs and objectives of individual students.

STUDENT Jane McDonald LC Jack Jones DATE 10/5/75

PREPARED BY Larry Smith POSITION Math Tutor

1. WHAT IS THE STUDENT'S GENERAL NEED? *(e.g., basic math, chemistry, oral communications)* Business Math

2. WHAT DIAGNOSTIC STEPS DID YOU TAKE TO DETERMINE THE STUDENT'S SPECIFIC NEEDS AND DIFFICULTIES? *(e.g., test, interview, written assignment)* Discussion with student and review of transcripts and previous test scores. Administered a basic math diagnostic test.

3. WHAT ARE THE STUDENT'S SPECIFIC NEEDS (RESULTS OF DIAGNOSIS)? The student needs to review multiplication and division of fractions and decimals; she needs to learn to accurately compute conversions, how to combine arithmetical processes in solving problems, and how to apply these skills in such transactions as maintaining a personal checking account, computing a payroll, etc.

4. IDENTIFY LEARNING ACTIVITIES SELECTED: *Workshop* ______

   Tutorial once a week as needed *Independent Study* ______

   Materials ______ *Other* ______

   REASON: She wishes to rely primarily on independent study, combining her work in the text with her project at the bank. She will consult with me once a week or when problems arise.

5. HOW WILL THESE ACTIVITIES BE INTEGRATED WITH THE STUDENT'S PROJECT(S)? She will be applying her skills in her project on banking. She already has enough skills to begin her project and will use those she develops as she goes along. Initially she will be spending most of

   (continued on reverse)

6. OBJECTIVES AND PERFORMANCE STANDARDS AGREED UPON WITH STUDENT: *(Use additional page if necessary.)*

   100% accuracy. Inaccurate work is not accepted; it must be corrected and resubmitted.

   (See reverse for additional criteria.)

7. AMOUNT OF CREDIT YOU AND THE STUDENT PROPOSE FOR THE SUCCESSFUL COMPLETION OF THIS WORK:

   5 *credits in* Business Math *subject area*

8. SCHEDULE OF APPOINTMENTS OR WORKSHOPS WITH Larry Smith
   (Tutor/Workshop Leader)

   DAYS Fridays TIMES 1:30 - 3:00 DATES: FROM 10/5/75 TO completion of objectives

SKILLS SPECIALIST'S APPROVAL Janet Nelson DATE 10/7/75

LEARNING COORDINATOR'S APPROVAL Jack Jones DATE 10/7/75

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Distribution: Original (White) - LC/files; Yellow - student; Pink - Skills Specialist; Goldenrod - Tutor or Workshop Leader

5. HOW WILL THESE ACTIVITIES BE INTEGRATED WITH THE STUDENT'S PROJECT(S)? *(continued)*

her time with a teller. Later she will learn other aspects of banking, such as evaluating loan applications, customer service, trust accounts, etc.

6. OBJECTIVES AND PERFORMANCE STANDARDS *(continued)*

1. Jane will accurately perform the following basic mathematical operations:

  a. the addition, subtraction, multiplication, and division of fractions and decimals, and

  b. the conversion of percentages to decimals, decimals to percentages, fractions to decimals, fractions to percentages, decimals to fractions, and percentages to fractions.

2. She will accurately combine these arithmetical processes in solving word problems.

3. She will use the appropriate processes accurately in such practical matters as maintaining a personal checking account, figuring change, and computing income tax reports.

4. She will apply the above mathematical processes to at least three banking situations such as determining amortization rates, figuring taxes, determining a loan applicant's net assets and repayment ability, computing billing charges, and so forth.

Basis for Credit Assignment: The first three objectives will be evaluated by Jane's tutor based on exercises and quizzes. The last objective will be evaluated by her Resource Person at the bank. Her RP will judge her work not only on mathematical accuracy, but also on her understanding of the purpose for the procedures and calculations used (e.g., what factors are considered in evaluating a loan application and why, how net income is figured, etc.). Successful completion of all four objectives will merit 5 credits: the first three objectives are worth 4 credits; the last is worth 1 credit.

Appendix 3

Examples of Completed Workshop Descriptions

Experience-Based Career Education

WORKSHOP DESCRIPTION

SUBJECT/SKILL AREA *Spanish I* WORKSHOP LEADER *Luis Torres*

MEETING DATES *Tuesdays and Thursdays* TIME *8:00 - 9:00 a.m.* / *9:00 - 10:00 a.m.* / *10:00 - 11:00 a.m.* } *3 sections*

OBJECTIVES FOR STUDENTS

Goal: Students will be able to communicate and comprehend (understand, speak, read, and write) basic facts, ideas, and feelings in modern conversational Spanish. Emphasis will be on communication using basic vocabulary and simple sentences in the present tense. Objectives are listed on the reverse of this sheet.

METHODS OR STRATEGIES: *(lecture, discussion, exercises, simulations, etc., and materials to be used)*

Games, exercises, films, dialogues, and group discussions, along with students' independent use of the text, Español: A Descubrirlo, *are used to develop aural and oral skills in basic idioms, vocabulary, and grammatical construction.*

TOTAL NUMBER OF MEETINGS PLANNED *32* APPROXIMATE LENGTH OF MEETINGS *one hour*

CREDITS OFFERED *(if any)*: *5* *(number)* CREDITS IN *Spanish I* *(subject area)*

BASIS FOR CREDIT ASSIGNMENT: *(completion of above objectives, individualized objectives, participation in meetings, other)* *Credit will be assigned on the basis of objectives satisfactorily met as follows: (see reverse)*

STUDENT EVALUATION OF WORKSHOP: *Please use the space below to evaluate this workshop, indicating what you learned, liked or disliked, etc., and return this form to your Learning Coordinator for your file. Use additional pages if necessary.*

STUDENT'S NAME ____________ NO. OF WORKSHOP MEETINGS ATTENDED ________ LC ____________

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Distribution: Original (White) - LC/File; Yellow - Student; Pink - Skills Specialist; Goldenrod - Tutor or Workshop Leader

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WORKSHOP DESCRIPTION: SPANISH I
(continued)

Objectives:

The student will demonstrate correct pronunciation, vocabulary, and grammatical construction in five of the following areas for full Spanish I credit:

1. Vowel and consonant sounds, use of *tu* and *Usted*, cognates, definite article, indefinite article;
2. Formation of the plural, first conjugation verbs, pronouns, noun gender, use of accent symbols;
3. Interrogative forms, negation, present tense of *tener* and *ser*;
4. Cardinal and ordinal numbers, present tense of *ir*;
5. Agreement of adjectives, plural of adjectives, position of adjectives, possessive adjectives;
6. Second and third conjugation verbs, pronouns; and
7. Vocabulary in student's special area of interest (to be negotiated with workshop leader).

Basis for Credit Assignment:

The student may earn 1 EBCE credit for each of the above categories in which he demonstrates with 75% accuracy correct pronunciation, vocabulary, and grammatical construction of the material covered in the category, but CANNOT BE AWARDED MORE THAN 5 CREDITS in Spanish I. The student may choose any one of the following options to demonstrate proficiency in a category, but may not use the same option for more than three categories.

1. Write a composition on a topic agreed upon by the student and the workshop leader which uses the grammar and vocabulary covered in the category.
2. Take a written and oral test on the grammar and vocabulary covered in the category.
3. Memorize and perform in the workshop a two- to five-minute dialogue with another student. The dialogue can be chosen from one of the lessons in the category or developed by the students themselves.
4. See a Spanish movie or TV program and discuss it in the workshop or with the workshop leader.

Experience-Based Career Education

WORKSHOP DESCRIPTION

SUBJECT/SKILL AREA French II WORKSHOP LEADER Max Brel

MEETING DATES Tuesdays, Wednesdays, & Thursdays TIME 10:00 - 11:00 a.m.

OBJECTIVES FOR STUDENTS Prerequisite: Satisfactory completion of French I.

Goal: Students will be able to communicate and comprehend (understand, speak, read, and write) basic facts, ideas, and feelings in modern conversational French. Emphasis will be on developing students' ability to communicate and comprehend the language in expressions requiring the use of different tenses, expanded vocabulary, and compound and complex sentences. Objectives are listed on the reverse of this sheet.

METHODS OR STRATEGIES: *(lecture, discussion, exercises, simulations, etc., and materials to be used)*

Exercises, dialogues, and group discussions, along with students' independent use of Burroughs Modern French programmed text and tapes, are used to develop aural and oral skills in basic idioms, vocabulary, and grammatical construction.

TOTAL NUMBER OF MEETINGS PLANNED 32 APPROXIMATE LENGTH OF MEETINGS one hour

CREDITS OFFERED *(if any)*: 5 *(number)* CREDITS IN French II *(subject area)*

BASIS FOR CREDIT ASSIGNMENT: *(completion of above objectives, individualized objectives, participation in meetings, other)* Credit will be assigned on the basis of the objectives satisfactorily met as follows: (see reverse)

STUDENT EVALUATION OF WORKSHOP: *Please use the space below to evaluate this workshop, indicating what you learned, liked or disliked, etc., and return this form to your Learning Coordinator for your file. Use additional pages if necessary.*

STUDENT'S NAME ______ NO. OF WORKSHOP MEETINGS ATTENDED ______ LC ______

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Distribution: Original (White) - LC/files; Yellow - Student; Pink - Skills Specialist; Goldenrod - Tutor or Workshop Leader

WORKSHOP DESCRIPTION: FRENCH II
(continued)

Objectives:

The student will demonstrate correct pronunciation, vocabulary and grammatical construction in five of the following areas for full French II credit:

1. comparison of adjectives, superlative of adjectives;
2. adverbs, nouns of quantity, idiomatic expressions with *avoir*;
3. direct object pronouns, indirect object pronouns;
4. object pronouns with the imperative, pronouns of *y* and *en*
5. past indefinite of verbs with *avoir* and *être*, conjugation of *faire* with idiomatic expressions;
6. future and conditional tenses; and
7. imperfect and pluperfect tenses.

Basis for Credit Assignment:

The student may earn 1 EBCE credit for each of the above categories in which he demonstrates with 75% accuracy correct pronunciation, vocabulary, and grammatical construction of the material covered in the category, but CANNOT BE AWARDED MORE THAN 5 CREDITS in French II. The student may choose any one of the following options to demonstrate proficiency in a category, but may not use the same option for more than three categories.

1. Write a composition on a topic agreed upon by the student and the workshop leader which uses the grammar and vocabulary covered in the category.
2. Take a written and oral test on the grammar and vocabulary covered in the category.
3. Memorize and perform in the workshop a two- to five-minute dialogue with another student. The dialogue can be chosen from one of the lessons in the category or developed by the students themselves.
4. Complete a chapter and end-of-module test approved by the workshop leader in Burroughs Modern French programmed text in the category.
5. See a French film and discuss it in the workshop or with the workshop leader.

Experience-Based Career Education

WORKSHOP DESCRIPTION

SUBJECT/SKILL AREA Algebra I

WORKSHOP LEADER Mary Stuart

MEETING DATES Monday, Wednesday, and Friday

TIME 10:00 - 11:00 a.m. / 12:00 - 1:00 p.m. } 2 sections

OBJECTIVES FOR STUDENTS

Goal: Students will be able to perform basic algebraic operations, including simple equations, inequalities, number systems, fractions, factoring, and graphing.

Objectives are listed on the reverse of this sheet.

METHODS OR STRATEGIES: *(lecture, discussion, exercises, simulations, etc., and materials to be used)*

Students receive individual tutoring as needed while working at their own pace through 34 units in an audio-tutorial programmed algebra course. The course is divided into five modules, each followed by an end-of-module test to monitor progress.

TOTAL NUMBER OF MEETINGS PLANNED 48

APPROXIMATE LENGTH OF MEETINGS one hour

CREDITS OFFERED *(if any)*: 5 *(number)*

CREDITS IN Algebra I *(subject area)*

BASIS FOR CREDIT ASSIGNMENT: *(completion of above objectives, individualized objectives, participation in meetings, other)* Credit will be assigned on the basis of objectives satisfactorily met as follows: (see reverse)

STUDENT EVALUATION OF WORKSHOP: *Please use the space below to evaluate this workshop, indicating what you learned, liked or disliked, etc., and return this form to your Learning Coordinator for your file. Use additional pages if necessary.*

STUDENT'S NAME ______

NO. OF WORKSHOP MEETINGS ATTENDED ______

LC ______

FWL-EBCE Rev.12/75

Distribution: Original (White) - LC/files; Yellow - Student; Pink - Skills Specialist; Goldenrod - Tutor or Workshop Leader

WORKSHOP DESCRIPTION: ALGEBRA I
(continued)

Objectives:

The student will be able to accurately perform basic algebraic operations which reflect an understanding of the following algebraic concepts and functions:

1. sets, variables, and sentences;
2. integers, rational numbers, and real numbers;
3. fractional expressions and polynomials;
4. solving sentences; and
5. relations, functions, and their graphs.

Basis for Credit Assignment:

Each of the above objectives represents the content of a module in the self-pacing audio-tutorial programmed basic algebra course. The course contains 34 units within five modules. A student may opt to take a unit or module test at any time without having completed the exercises within the unit or module. If he uses this option and achieves a minimum of 75% accuracy, he will have satisfactorily completed the unit or module. As long as the student scores 75% or above, he may proceed through each succeeding unit or module test. A score below 75% will indicate a need for work within the module. At this point, the tutor will direct the student to the particular unit or units in which he needs additional skills, as determined by the test results. After completing the unit or units, the student then takes a module test.

The student will be awarded 1 EBCE credit for each module test completed with a minimum of 75% accuracy, thereby demonstrating satisfactory achievement of an objective.

Experience-Based Career Education	WORKSHOP DESCRIPTION

SUBJECT/SKILL AREA Geometry I WORKSHOP LEADER Calvin Blake

MEETING DATES Monday, Wednesday, and Friday TIME 12:00 noon - 1:00 p.m.

OBJECTIVES FOR STUDENTS

Goal: The student will be able to understand and apply some of the basic postulates and theorums of geometry. Specific objectives are listed on the reverse of this sheet.

METHODS OR STRATEGIES: *(lecture, discussion, exercises, simulations, etc., and materials to be used)*

Students receive individual tutoring as needed while working at their own pace through the first five chapters in Modern Basic Geometry by Jurgensen, Maier, and Donnelly. The text is supplemented by small-group lectures, exercises, and discussions.

TOTAL NUMBER OF MEETINGS PLANNED 48 APPROXIMATE LENGTH OF MEETINGS one hour

CREDITS OFFERED *(if any)*: 5 *(number)* CREDITS IN Geometry I *(subject area)*

BASIS FOR CREDIT ASSIGNMENT: *(completion of above objectives, individualized objectives, participation in meetings, other)* Credit will be assigned on the basis of objectives satisfactorily met as follows: (see reverse)

STUDENT EVALUATION OF WORKSHOP: *Please use the space below to evaluate this workshop, indicating what you learned, liked or disliked, etc., and return this form to your Learning Coordinator for your file. Use additional pages if necessary.*

STUDENT'S NAME ______ NO. OF WORKSHOP MEETINGS ATTENDED ______ LC ______

FWL-EBCE Rev.12/75

Distribution: Original (White) - LC/files; Yellow - Student; Pink - Skills Specialist; Goldenrod - Tutor or Workshop Leader

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WORKSHOP DESCRIPTION: GEOMETRY I
(continued)

Objectives:

The student will be able to accurately perform basic geometric operations (including proofs) which reflect an understanding of the following geometric structures, postulates, and theorums:

1. points, lines, and planes;
2. angle measure;
3. parallel lines and planes;
4. congruent triangles; and
5. applying congruent triangles.

Basis for Credit Assignment:

Each of the above objectives represents the content of a chapter in Modern Basic Geometry (Jurgensen, Maier, and Donnelly). The course covers five chapters in the text and is followed by a cumulative review. A student may opt to take a chapter test at any time without having completed the exercises within the chapter. If he uses this option and achieves a minimum of 75% accuracy, he will have satisfactorily completed the chapter and objective. As long as the student scores 75% or above, he may proceed through each succeeding chapter. A score below 75% will indicate a need for work within the chapter. At this point, the tutor will direct the student to the particular sections in which he needs additional skills, as determined by the test results. After completing the sections, the student then takes a chapter test.

The student will be awarded 1 EBCE credit for each chapter test completed with a minimum of 75% accuracy, thereby demonstrating satisfactory achievement of an objective. Credit for achievement of the fifth objective will be awarded upon satisfactory completion of the chapter test plus satisfactory completion of the cumulative review of the five chapters.

Experience-Based Career Education

WORKSHOP DESCRIPTION

SUBJECT/SKILL AREA Geometry II WORKSHOP LEADER Mary Stuart

MEETING DATES Monday, Wednesday, and Friday TIME 11:00 a.m. - 12:00 noon

OBJECTIVES FOR STUDENTS Prerequisite: Satisfactory completion of Geometry I.

Goal: Students will be able to understand the structure and properties of, and be able to measure and construct, basic plan and solid geometric figures. Specific objectives are listed on the reverse of this sheet.

METHODS OR STRATEGIES: *(lecture, discussion, exercises, simulations, etc., and materials to be used)*

Students receive individual tutoring as needed while working at their own pace through Chapters 6 through 12 of Modern Basic Geometry by Jurgensen, Maier, and Donnelly. The text is supplemented by small-group lectures, exercises, and discussions.

TOTAL NUMBER OF MEETINGS PLANNED 48 APPROXIMATE LENGTH OF MEETINGS one hour

CREDITS OFFERED *(if any)*: 5 *(number)* CREDITS IN Geometry II *(subject area)*

BASIS FOR CREDIT ASSIGNMENT: *(completion of above objectives, individualized objectives, participation in meetings, other)* Credit will be assigned on the basis of objectives satisfactorily met as follows: (see reverse)

STUDENT EVALUATION OF WORKSHOP: *Please use the space below to evaluate this workshop, indicating what you learned, liked or disliked, etc., and return this form to your Learning Coordinator for your file. Use additional pages if necessary.*

STUDENT'S NAME ______ NO. OF WORKSHOP MEETINGS ATTENDED ______ LC ______

FWL-EBCE Rev.12/75

Distribution: Original (White) - LC/files; Yellow - Student; Pink - Skills Specialist; Goldenrod - Tutor or Workshop Leader

WORKSHOP DESCRIPTION: GEOMETRY II
(continued)

Objectives:

The student will be able to accurately perform basic geometric operations which reflect an understanding of the following concepts:

1. quadrilaterals;

2. similar polygons and right triangles;

3. circles and constructions;

4. measuring plane and solid figures; and

5. coordinate geometry.

Basis for Credit Assignment:

Each of the above objectives represents the content of one or more chapters in Modern Basic Geometry (Jurgensen, Maier, and Donnelly). The course covers seven chapters in the text. A student may opt to take a chapter test at any time without having completed the exercises within the chapter. If he uses this option and achieves a minimum of 75% accuracy, he will have satisfactorily completed the chapter. As long as the student scores 75% or above, he may proceed through each succeeding chapter. A score below 75% will indicate a need for work within the chapter. At this point, the tutor will direct the student to the particular sections in which he needs additional skills, as determined by the test results. After completing the sections, the student then takes a chapter test.

The student will be awarded 1 EBCE credit for each objective met by completing the appropriate chapter tests with a minimum of 75% accuracy. Credit for achievement of the fifth objective will be awarded upon satisfactory completion of the chapter test plus satisfactory completion of the cumulative review of all chapters in the course.

Experience-Based Career Education

WORKSHOP DESCRIPTION

SUBJECT/SKILL AREA *Communications* WORKSHOP LEADER *Jim Howard*

MEETING DATES *Tuesdays* TIME *10:30 a.m. to 12:00 noon*

OBJECTIVES FOR STUDENTS

Goal: To improve each student's abilities in core verbal and literacy skills -- reading, writing, talking, listening -- and in problem-solving and processes of inquiry as they relate to communication: gathering information, analyzing and interpreting it, and expressing it effectively in various forms and media. See the reverse for objectives.

METHODS OR STRATEGIES: *(lecture, discussion, exercises, simulations, etc., and materials to be used)*

The workshop takes as its raw materials or "subject matter" learning experiences out in the community. Reading and writing assignments and group discussions are used to clarify, synthesize, and reinforce the experiences, ideas, and problems generated through activities in the community.

TOTAL NUMBER OF MEETINGS PLANNED *10* APPROXIMATE LENGTH OF MEETINGS *1½ hours*

CREDITS OFFERED *(if any)*: *2 to 3* *(number)* CREDITS IN *English* *(subject area)*

BASIS FOR CREDIT ASSIGNMENT: *(completion of above objectives, individualized objectives, participation in meetings, other)* *Two credits for preparation (reading) and participation in workshop discussions. One additional credit for completion of four essays with demonstrable improvement in writing skills. Additional credit possible. (See reverse)*

STUDENT EVALUATION OF WORKSHOP: *Please use the space below to evaluate this workshop, indicating what you learned, liked or disliked, etc., and return this form to your Learning Coordinator for your file. Use additional pages if necessary.*

STUDENT'S NAME ________ NO. OF WORKSHOP MEETINGS ATTENDED ________ LC ________

FWL-EBCE Rev.12/75

Distribution: Original (White) - LC/files; Yellow - Student; Pink - Skills Specialist; Goldenrod - Tutor or Workshop Leader

WORKSHOP DESCRIPTION: COMMUNICATIONS
(continued)

OBJECTIVES:

Oral Communications

1. The student will communicate facts, ideas, and feelings in an appropriate and effective manner.
2. The student will listen effectively.

Writing Skills

1. The student will communicate facts, ideas, and feelings in writing so that most people can understand what was stated.
2. The student will write letters, descriptions, and reports required in daily life.
3. The student will demonstrate performance of writing skills necessary for his learning experiences and activities in the community.

Reading Skills

1. The student will read selections from a newspaper or other popular periodical and (a) recognize the main point(s); (b) recognize the author's purpose; and (c) locate specific facts and details.
2. The student will read selections required for learning experiences and community activities and (a) define the author's purpose and support that definition with evidence; (b) identify and explain different levels of meaning included in the selection; (c) identify biases with supporting evidence; (d) extend interpretation beyond the printed information; and (e) recognize and describe different writing styles.

Problem-Solving Skills

1. The student will define a problem by identifying a need or a discrepancy between what is and what he thinks should be. This can be in a personal, group, societal, academic, or career situation.
2. The student will use a variety of sources and techniques of data-gathering.
3. The student will propose or analyze alternative solutions and communicate his evaluations of them.

WORKSHOP DESCRIPTION: COMMUNICATIONS
(continued)

BASIS FOR CREDIT ASSIGNMENT:

For preparation and participation in the workshop (2 credits) and completion of at least four essays with demonstrable improvement in writing skills (1 credit), students may earn 3 credits in English. Students may choose one of several options to earn additional credits in English. These options include:

1. Participation in a related tutorial (grammar review, writing skills, reading, etc.). Participation must be documented on appropriate forms.

2. Completion of written project products in which efforts to improve writing skills are evident.

   [If this option is selected, early drafts of products must be submitted to the workshop leader for review and criticism well in advance of the project deadline. Final drafts must then demonstrate improvement in organization, style, grammatical usage, critical thinking, etc. Students should indicate on page 1 of their Student Project Plan that English credit is sought (1 or 2 credits) and should designate the workshop leader as one of their evaluators of project products on page 3 of the Student Project Plan. They should also indicate deadlines for both their first and final drafts of products.]

3. Completion of additional assignments negotiated with the workshop leader, e.g., reading and writing beyond the minimum required for the workshop, related to the student's own interests and needs. Such additional work must be documented on the Diagnosis and Plan form.

4. Continuation of the Communications Workshop in a subsequent term.

Students should decide how they plan to earn the English credit they desire as soon as possible and obtain their Learning Coordinator's approval of their plans.

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Experience-Based Career Education

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PROJECT PLANNING PACKAGES

11. Commerce
12. Communications and Media
13. Life Science
14. Physical Science
15. Social Science

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EXPERIENCE BASED CAREER EDUCATION

THE FAR WEST MODEL

EBCE

Experience-Based Career Education

11. Commerce

Commerce Package

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January 1976

Experience-Based Career Education Program
FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT
1855 Folsom Street, San Francisco, California 94103

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Table of Contents

Page

INTRODUCTION 1

PROJECT IDEAS 3

CAREERS YOU CAN EXPLORE 5

HOW TO PLAN AND COMPLETE A PROJECT 7

PROJECT SEMINARS 11

USING THE PACKAGE GOALS 13

COMMERCE PACKAGE GOALS 14

COMMERCE PACKAGE GOAL CHECKLIST 19

COURSE EQUIVALENCIES 23

SAMPLE PROJECTS 25

Sample Project 1: Advertising and the Consumer 27
Sample Project 2: Opening a Small Business 39
Sample Project 3: Exploring Careers in Sales 49
Sample Project 4: Inflation 59
Sample Project 5: The Insurance Business 69

RESOURCES

Resource Persons 79
Resource Organizations 83
Community Resources 85
Bibliography 87

Introduction

It is not by hoarding money, but by employing and investing it, that property accumulates in America; and the inexhaustible riches of the country open daily a thousand new roads to industry and commerce.

*-- Francis J. Grund (1839)**

Ours may not be a perfect system but under it 7 per cent of the people of the world do produce nearly 50 per cent of the world's manufactured goods.

-- Paul G. Hoffman (1950)[†]

Business has never been the best loved of American institutions, but its standing these days is the lowest in memory; as businessmen see it, a kind of chronic distrust of them has burst into overt hostility . . . exposes of corporate wrongdoing have become almost routine . . . . The No. 1 issue with chief executives of major corporations these days is their own credibility -- and 40 per cent of the top men polled now spend up to half their time dealing with such non-traditional concerns as consumer and environmental affairs, relations with the media, local communities and government at all levels.

-- Newsweek (1976)[§]

Is America still the land of opportunity? Has the fun gone out of business? The dignity? Has our standard of living reached its limits? Are we headed for another depression? Are we exhausting our resources? Has business lost its social conscience and ignored its social responsibilities?

---

* Quoted in George E. Probst, ed., The Happy Republic, A Reader in Tocqueville's America (New York: Harper Torchbooks, 1962).

† Quoted in F.X. Sutton, et al., The American Business Creed (New York: Schocken Books, 1962).

§ "The Embattled Businessman," Newsweek, February 16, 1976

The Left protests that our government, and our future, is being controlled by the "corporate interests." The Right complains that the free enterprise system is being destroyed by too much government regulation. The neighborhood store is forced out of business by discount chains; the family farm disappears under the corporate umbrella of agribusiness. The worker faces rising unemployment and inflation, while being asked to subsidize agriculture and industry through government loans, loan guarantees, and outright grants. And the businessman is caught in the middle.

Most people in this country still work in private enterprise. Many dream of someday owning their own business, being their own boss. What are their prospects? Is small business becoming an endangered species? Should it be protected? Why? How? How does business really operate? Are business owners and managers as ruthless and uncaring as some people say? Can you work in private enterprise for social ends? What are some of the new and emerging kinds of business? Which have the greatest potential for survival and growth? Why?

If these issues concern you, you can explore them or similar ones by planning projects using the framework of the Commerce Package. You can also investigate such things as the credit system, inflation, the production and distribution of goods, and the effects of technology on our economy.

Additional ideas for projects are offered throughout the package. Check the list of resources at the end for people and organizations you might work with. Use the sample projects as models in developing your own Project Plan. The section on how to plan and carry out a project gives detailed instructions to help you get started. Your Learning Coordinator will use the package goals and requirements to determine, with you, the kind and amount of credit your project will earn. Study them before planning your project and you will be ahead of the game.

Through your project and your participation in the Commerce Project Seminar, you should become more aware of how the economic system works, the sources and uses of economic power, and the social benefits and problems created by mass production, advances in technology, and the growth of large-scale corporations and labor organizations. Besides becoming a more critical consumer, you can explore some careers in business and economics, and learn some of the techniques and skills necessary to actively participate in the world of commerce.

Project Ideas

Labor Unions

Labor unions are a major force in the American economy and in the business world. What kinds of jobs are unionized? What were working conditions like before workers began to organize? What changes did unionization bring about? Can unions, as some employers claim, be blamed for the upward spiral of inflation? What effect do unions and the whole union structure have upon prices, the job market, and the importation and sale of foreign goods in the United States? What is the role of a union leader? How do unions make decisions on issues that will affect the economy? How do they influence politics and governmental policies?

The Big City and the Neighborhood Store

In the United States there has long been a tradition, which still exists in smaller towns, of the neighborhood store in which the clerk or salesperson and the owner are one and the same. The storekeeper knows most of his customers on a first-name basis and the customers are long-standing clients. How has the growth of large cities changed the pattern of American business? Is the small shopowner a fading figure in the American economy, eased out by the chains and discount stores? What does the large department store offer that the independent small shop cannot? What are the advantages of the small store? Is there a future for the small shopowner in the neighborhoods of big cities? How must they operate if they are to survive?

Buyers

Buyers are responsible for selecting merchandise which sells quickly, draws few complaints, and provides sufficient profit margin for the store to operate. How does a buyer learn to predict whether and how well a particular item will sell? What other responsibilities do buyers have? Does the merchandise that buyers select reflect current market trends and fasions or do buyers set them? What effect do buyers have on your ability to obtain goods you want and need? How can you, as a consumer, influence what goods stores will offer and at what prices?

The Economy and the Quality of Life

Most Americans would agree that one of our primary national goals should be to increase the quality of life for all our citizens. We are not necessarily agreed, however, on what constitutes "good living." How do you define the good life? How do you measure the "quality" of living? The government has identified a certain level of income as the "poverty level." How does that match with your definition of poverty? The government publishes statistics on unemployment, average income, real income, the Consumer Price Index (CPI), and the Gross National Product (GNP). What are these things, how are they measured, and what do they tell you about the quality of life? Are other indicators needed? How can our quality of life be improved? Are changes needed in our governmental policies or economic system to achieve the "good life" for more people? Why? How feasible are the changes you see as necessary? Why?

Public Versus Private Enterprise

What kinds of goods or services should be provided by the government rather than by private enterprise? Why? How do answers to this question differ in different societies or circumstances? For example, the United States in the only "western" nation in which railroads are operated largely by private enterprise. Why? Should the railroads be nationalized? Why or why not? Many people argue that private enterprise is inherently more efficient than government. Is this true? Why? How do you know? How are management decisions made in business? How are they made in government agencies? How are careers in business or public administration similar? How do they differ?

Careers You Can Explore

There is an almost endless array of careers involved in the daily commerce of a modern, industrialized, consumer-oriented society. Some of these careers are as old as human society itself. Others are so new that we have yet to figure out what exactly to call them. They vary greatly in work performed, and in skills and training required, but all are involved in seeking more effective ways to manage, produce, sell or distribute goods and services. Through your project, working with resources in the community, and learning more about the problems and possibilities of this field, you can explore some of these careers and learn more about your own interests and goals in the process.

accountant
administrative aide
advertising manager
advertising copy writer
association manager
art director
banker
bookkeeper
business manager
business reporter
buyer
city manager
clerk
commerical artist
commercial photographer
company president
company vice president
display designer
economist
employment counselor
financial consultant
income tax consultant
insurance broker
insurance consultant
investment broker
labor arbitrator
landlord
layout person
market research analyst
operating manager
personnel analyst
personnel manager
production manager
public relations manager
purchasing agent
real estate agent
salesperson
secretary
shipping clerk
small business owner
statistician
stenographer
stock broker
systems analyst
traffic manager
training supervisor
typist
union business agent
warehouse manager

How to Plan and Complete a Project

Your project might begin with a desire to explore a career, to dig into a social, scientific, or political problem, to work with a particular resource, or to earn credits required to graduate or to pursue your educational and career goals. Wherever you start, you will need shortly to decide what you will be doing, with whom, and what you plan to learn about or learn how to do through your project. You are essentially planning your own course of study, just as a teacher must plan a class. Your plans must be in writing so that you, your Learning Coordinator, and the resources with whom you are working all know what you hope to accomplish. Your plans will grow and change as you work on the project; make sure these changes are recorded and approved by your Learning Coordinator (LC). At a time agreed upon by you and your LC -- about one month before you plan to complete your project -- you will be asked to develop a final Project Plan which then becomes a learning contract you are promising to keep in return for the credit you seek. Below are some pointers for how to plan and complete a project. They offer a guide only. Where you will need to start and how you will proceed depends on how clear an idea you have of what you want to do. Beginning from scratch, you should do the following.

Finding a Topic

1. Read through the project ideas, sample projects, and lists of resources in the packages to find out what you can do and learn with the people and organizations who are ready to work with you.

2. Meet with your LC to discuss your interests:

   - what you want to explore -- a career, a subject, an issue, or a combination of these -- and the kinds of things you would like to learn;

   - which package you should use, who is coordinating it, and when the project seminar meets; and

   - which resources you want to or ought to contact.

3. Attend some project seminar meetings to:

   - get ideas, suggestions, and assistance in planning your project from the Package Coordinator and the other students, and

   - broaden your knowledge of careers, issues, problems, ideas, and techniques related to the package.

4. Choose some resources that interest you, plan Orientation visits using a Project Sketch, visit the resources, discuss your ideas with them, and explore possible project topics. The purpose of your Orientations should be to help you find out what you want to learn about or learn how to do, where, and with whom. NOTE: You must go beyond these brief Orientations to really plan and complete a worthwhile project. You may wish to broaden your knowledge of an issue or career by visiting several resources and working with one or two at the Exploration level. Or you may wish to dig into a subject or career and develop some expert knowledge or skills through working with one resource for an extended period of time.

Developing a Plan

5. When you have settled on an area of interest, start planning your project on a Student Project Plan. See the sample projects in this package for models. If you have trouble understanding what your project should look like on paper, see your LC and the Package Coordinator. After three or four Orientation visits to resources, you should be able to do the following (and complete the appropriate sections of the Project Plan):

   - Describe the theme of your project.

   - Pose significant questions you will investigate.

   - List the resources you have used and plan to use in completing your project. (If no resources are available in your area of interest, you may have to recruit some yourself. Ask your LC and the Resource Analyst for help.)

   - Identify related reading or other research materials you will use and how you will use them.

   - Identify special requirements or prerequisites.

   - Estimate how long your project will take.

6. After two or three more visits with your resources, you should be able to:

   - State what you want to learn about or learn how to do through your project (your goals) and how you will demonstrate you have learned it (your indicators). Pace your work by making some indicators due earlier than others. Be sure that your goals and indicators include at least one product. REMEMBER: You can change, refine, add to, or delete goals and indicators until the cutoff date decided upon by you and your LC, after which your Project Plan becomes a learning contract.

   - If you want someone in addition to your LC to evaluate your work (such as a Resource Person or the Package Coordinator), ask that person if he or she is willing to do it. Only those who have agreed to evaluate your products and/or performance should be listed as evaluators on the last page(s) of your Student Project Plan.

   - Be sure that your project will be worth the amount and type of credit you wish to receive. (With your LC, compare your project goals and indicators with the package goals using the goal checklist.) If you cannot meet the package requirements for the amount and type of credit you want with one project, do two.

   - Be sure to discuss your project topic with your resources and work with them to firm up your Plan.

Completing Your Project

7. Work with your resources, do your research and related reading, and have weekly discussions with your LC, keeping him or her informed of your interests, goals, and activities.

8. Whenever possible, relate work you are doing in workshops or other supplementary activities to your projects. (For example, bring early drafts of project reports to your English instructor or tutor to have them reviewed and critiqued.)

9. Attend project seminar meetings to give progress reports, share your experiences, get help in solving problems you encounter, and learn how other students' projects and yours are related to a common subject/career area.

10. Wrap up your project and submit it for credit by:

    - completing products and performance tests which demonstrate what you have learned. (Products can be written reports or essays, photographic essays or drawings, audio- or videotape recordings, or other media. Performance tests can be oral reports, presentations, or actual tasks at a resource site.)

- having your products and/or performance reviewed and evaluated by the persons designated on your Project Plan. (Be sure your evaluators record their assessments on the last page(s) of your Project Plan. If you agree with the evaluation, add your initials. If you disagree, state your reasons in the "Comments" column.)
- completing a Project Summary Report evaluating your own work and requesting the amount and type of credit you think you have earned through your project.

11. Turn in your Student Project Plan, product(s), and Project Summary Report to your LC for review, evaluation, and assignment of credit.

Project Seminars

One of the ways to make learning come alive is to talk about it -- to share what turns you on most, get help with problems, see if your insights make sense to others, and maybe even argue some about ideas or solutions. Project seminars are a series of meetings where students working in related subject areas can come together and rap about questions and issues common to the field they're all exploring. The meetings can be useful in a number of ways.

- First, they can help you with ideas for projects. If you don't already have one, listening to other students kick around their interests may trigger an idea of your own, some direction you hadn't thought of. If you do have a project in mind, these discussions can help you clarify and focus it, plus give you some good leads for resources to visit.

- You can't be sure what you know or how well you know it until you try to explain it to someone else. Testing your findings on others, bouncing ideas or conclusions off them, and describing particular experiences can help you get a firmer grasp on what you're learning. You may find you know more than you thought or see that some of your answers need rethinking.

- Through your own project, you will be able to explore only some of the interesting ideas, techniques, issues, and careers related to this package. Your fellow students will have the same problem. But together, in the project seminars, you can learn from each other's research and experiences, thus expanding your knowledge of the field in general.

- In the same way, talking with guest speakers, viewing films, or visiting relevant community resources as a group will broaden your understanding of the discipline and related careers.

- Project seminars provide a resource you can tap to solve problems encountered in carrying out your project. If you're having trouble working with a particular Resource Person, finding sources of information about your topic, or deciding what kind of product will best communicate your findings, other students and the Package Coordinator can help you analyze alternatives and find a solution.

- Finally, you may discover that some students share your interests and concerns and would like to combine talents and energies into a group project. Working jointly you can sometimes tackle bigger problems and cover more ground.

Using the Package Goals

The goals on the following pages outline some important kinds of learning which should be included in your project. They are meant to stretch your imagination and to help you develop a worthwhile Plan, not to confine your thinking. Minimum requirements for a project are given, so that you and your Learning Coordinator have standards for judging whether your project is roughly equal in amount of work to a class in the subject. These goals and requirements are broadly stated to allow you great freedom in deciding exactly what you will learn, with whom, how you will demonstrate your new knowledge or skills, and who will evaluate your work.

When you have drafted your Project Plan, compare it with the package goals and requirements. You can use the goal checklist to make certain your Plan is complete. If you have trouble understanding the goals or how to use them, ask your Learning Coordinator for help.

Commerce Package Goals

GOAL 1: BASIC SKILLS (Required)

You should practice and improve your basic skills by using at least one method of acquiring and one method of communicating information in the course of your project.

ACQUIRING INFORMATION (choose one)

- Reading: You should be able to read critically and comprehend newspaper and magazine articles, books, or other materials pertinent to your project.
- Listening: You should be able to listen effectively and critically to speeches, lectures, radio and television broadcasts, and other commentaries related to your project.
- Observing: You should be able to acquire information from and interpret events, films, or television programs pertinent to your project.

COMMUNICATING INFORMATION (choose one)

- Writing: You should be able to clearly express in writing information and ideas relevant to your project.
- Speaking: You should be able to communicate orally your own ideas, thoughts, and feelings.
- Innovating: You should be able to communicate ideas or findings using nonverbal means -- for example, through making photographs or films, graphic illustrations, or models.

GOAL 2: PROBLEM-SOLVING (Required)

You should expand your problem-solving skills by thoroughly investigating a significant question, problem, or issue in the field of commerce. To do so, you should:

- Define the problem or issue. (Why is it important? Who does it affect? What are some of its causes?)
- Identify sources of information to learn more about the subject (people, books, magazine articles, government agencies).
- Use appropriate methods for gathering data (interviewing, observing and recording, reading, survey research, experimenting with different techniques or solutions).
- Organize the information obtained. (Tally, summarize, compare, analyze, or synthesize your findings.)
- Evaluate proposed solutions. (Which solutions are most desirable from your viewpoint? Why? Which are most feasible in terms of time, cost, human nature, or other factors? Why?)

GOAL 3: CAREER DEVELOPMENT (Choose a or b)

a. You should learn enough about two careers in the field of commerce to evaluate them in terms of your own interests, values, goals, and abilities. Your research should include the following:

   - The roles and functions of an employee.
   - The relation of the career to other careers.
   - The qualifications and routes for entry.
   - The working conditions, rewards, and benefits of the career.
   - The current and projected demand in the field.
   - Union or professional affiliations that are desirable or necessary.
   - The effect of the job on one's lifestyle.
   - Your own evaluation of the career.

b. You should develop career entrance skills in two of the following areas:

   - Obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements.
   - Preparing letters of inquiry, applications and resumés for employment or school entry.
   - Preparing for and performing effectively in employment or other admissions interviews.
   - Acquiring job-entry skills and experience in a chosen career field.

Commerce Package Goals (continued)

Choose Goal 4 or Goal 5 or Goal 6 (or combine elements from each for a total of five).

GOAL 4: ECONOMICS (At least five required)

Through a project in economics, you should increase your understanding of some major concepts used in the field and expand your knowledge of your economic environment. You should understand and show you can use at least five of the following concepts (or five comparable ones) in analyzing an economic problem, process, or issue of interest to you.

- Resources: What kinds of economic resources are there? Who decides how they will be used? How are such decisions made in this and other societies? How should they be made?
- Production: What should be produced? In what quantity? By whom? For whom? How? When? How are such decisions made? Who makes them?
- Distribution: How are goods and services distributed? On what basis? What goods and services, if any, should be available to everyone? Why?
- Money: What is it? Why is it used? How is money used? How should it be used? How should it be distributed? Why?
- Property: What is property? When should it be public or private? What are the rights of ownership?
- Capitalism: What is it in practice and in theory? How does it contrast with other economic systems? How has the definition of capitalism changed?
- Credit: What is it? What effect does it have on the economy and on the individual? How does national debt compare to family debt?
- Demand: What is the difference between natural and created demand? What effect does advertising have on demand? What is the relationship between demand for goods and services and their supply?
- Welfare: What forms does it take? What is its purpose? Does it work? Should it be changed? How and why?
- Taxes: What are the different kinds of taxes? How are they collected, distributed, and used?
- Power: What constitutes economic power? What are its sources? Who has it? What is the relationship between political and economic power?
- Labor: How is the value of labor determined? How have the conditions of labor changed? What is organized labor? What role does it play in the economy? What role should it play?
- Recession: What is it? Why and when does it occur? Can it be prevented? What are some recommended cures? What is the difference between a recession and a depression?
- Poverty: How does the government define poverty? How do you define it? Why is there poverty? Can it ever be eliminated? How or why?
- Prosperity: What are the characteristics of a "healthy" economy? What should the average individual's standard of living be? Has our society's definition of prosperity changed? How? Why?
- Inflation: How is it defined? Why and when does it occur? Can it be stopped? How? Should it be stopped?
- Other (specify).

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Commerce Package Goals (continued)

GOAL 5: BUSINESS EDUCATION (At least five required)

Through studying a business or some aspect of business management and operations, you should increase your understanding of ways businesses are organized and work, the effect of corporate policies and activities on your daily life, and the means by which citizens and consumers can influence business actions. You should demonstrate your understanding of at least five of the following elements (or five comparable elements) as they relate to your project.

- What are the characteristics of various forms of business, such as single proprietorship, partnership, corporation, cooperative, public ownership, and franchise? How and why is each used?
- What is the relationship between management and labor? What kinds of power does each possess? Why? What are collective bargaining, arbitration, strikes, boycotts, and closed shops? How are they used?
- What is the impact on business of changes in technology? How do technological innovations affect what is produced and the means of production? Is there such a thing as "planned obsolescence"? Why?
- Does the economy move in cycles? How are economic cycles described? How do they affect different kinds of businesses? What influences these cycles?
- What is the nature of the business/client relationship, legally and in practice? Is the customer "always right"? Should the "buyer beware"? Of what? Should the seller take care? Why? What are the rights of sellers and consumers? What recourse do they have?
- What kinds of factors must be considered in business forecasting and planning? What kinds of things should you consider in your personal economic planning? Are they similar? How?
- What management skills and techniques are necessary to operate a business? Why are they important? How are they acquired? When and how are they used? How do they compare with the skills needed to manage a government or nonprofit agency?
- What are some of the methods of obtaining capital? How do they work? What is the difference between common and preferred stocks? What are bonds? Commodity futures? How do commercial, government, and guaranteed loans differ?
- What values and ethics influence the way businesses are managed and operated? Is the "profit motive" the key to business survival? Is efficiency foremost? What is the businessman's obligation to society? Why?
- How important are sales planning and marketing to business success? Why? What are some of the methods of marketing? How does pricing affect sales? What other factors are involved?
- What role does advertising play in business? Is advertising necessary? Why?
- How do government policies and regulations affect business? What are some of these policies or rules? Why were they instituted? Are they working? Is there too much or too little government regulation of business? Why?
- What demands are placed on a business for record keeping? What kinds of records are really needed to do business? What others are required? Why?
- What are some of the basic accounting models? How do they compare with one another? When is one preferred over another? Why?
- Other (specify).

Commerce Package Goals (continued)

GOAL 6: COMMERCE SKILLS AND TECHNIQUES (At least five required)

If you want to focus your project on acquiring some of the skills and techniques used in business and economics, you will need to work closely with your resources and Learning Coordinator to identify at least five specific skills you will work on and demonstrate through your project. The list below provides some examples of skills and techniques. You may choose five of these to work on or identify five comparable skills.

- Conducting surveys (for example to determine the market potential of a product or service, evaluate customer satisfaction, or assess employee attitudes).
- Analyzing statistical data to determine or forecast trends.
- Preparing a budget.
- Writing business proposals or reports.
- Composing business letters.
- Operating office machines and equipment.
- Maintaining and performing minor repairs on office equipment.
- Using different kinds of filing systems.
- Posting receipts and expenses to ledgers.
- Arranging displays of goods.
- Handling cash and credit transactions.
- Writing advertising copy.
- Illustrating advertising copy.
- Resolving interpersonal conflicts.
- Contributing to group efforts.
- Dealing with the public.
- Typing letters, memos and reports.
- Other (specify).

Obviously, it could take years to become expert in some of the above. If you wish to specialize and earn credit in a particular skill area, such as accounting or typing, you will be expected to meet the performance standards for that subject generally employed in your school or district or demonstrate entry-level job skills.

Experience-Based Career Education	COMMERCE PACKAGE GOAL CHECKLIST
STUDENT'S NAME	DATE
PROJECT TITLE	

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* ☐ reading ☐ listening ☐ observing *Communicating Information* ☐ writing ☐ speaking ☐ innovating
2. PROBLEM-SOLVING	*All elements*	☐ define the problem or issue ☐ identify sources of information ☐ use appropriate methods for gathering data ☐ organize the information obtained ☐ evaluate proposed solutions
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	☐ a. investigate two careers in terms of: ☐ roles and function of employee ☐ relation of career to other careers ☐ qualifications for entry ☐ working conditions, rewards, benefits ☐ current and projected demand ☐ union or professional affiliations ☐ effects of job on lifestyle ☐ your own evaluation of the career ☐ b. develop career entrance skills in two of the following areas: ☐ obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements ☐ preparing letters of inquiry, applications and resumés ☐ preparing for and performing in interviews ☐ acquiring job-entry skills and career-related experience

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COMMERCE PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from Goal 4, 5, or 6, or you can combine elements from each as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. ECONOMICS	*At least five elements or five comparable elements*	[ ] resources [ ] production [ ] distribution [ ] money [ ] property [ ] capitalism [ ] credit [ ] demand [ ] welfare [ ] taxes [ ] power [ ] labor [ ] recession [ ] poverty [ ] prosperity [ ] inflation [ ] other (specify) ____________________ ____________________ ____________________
5. BUSINESS EDUCATION	*At least five elements or five comparable elements*	[ ] forms of business [ ] relationship between management and labor [ ] impact on business of changes in technology [ ] economic cycles [ ] business/client relationship [ ] business forecasting [ ] management skills and techniques [ ] methods of obtaining capital [ ] business values and ethics [ ] sales planning and marketing [ ] advertising [ ] government policies and regulations [ ] business record keeping [ ] accounting models [ ] other (specify) ____________________ ____________________ ____________________

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COMMERCE PACKAGE GOAL CHECKLIST (Continued)

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
6. COMMERCE SKILLS AND TECHNIQUES	*At least five elements or five comparable elements*	☐ conducting surveys ☐ analyzing statistical data ☐ preparing a budget ☐ writing business proposals or reports ☐ composing business letters ☐ operating office machines and equipment ☐ maintaining and performing minor repairs on office equipment ☐ using different kinds of filing systems ☐ posting receipts and expenses to ledgers ☐ arranging displays of goods ☐ handling cash and credit transactions ☐ writing advertising copy ☐ illustrating advertising copy ☐ resolving interpersonal conflicts ☐ contributing to group efforts ☐ dealing with the public ☐ typing letters, memos, and reports ☐ other (specify)____________________ ______________________________ ______________________________

Course Equivalencies

One of your concerns in developing a project should be earning credits you need for graduation. Depending on the focus of your project within the broad field of commerce, you may earn credit in any of these subject areas:

Business and Economics

- Business Communications
- Business Law
- Business Math
- Business Psychology
- Commercial Art
- Consumer Education
- Economics
- Introduction to Business

Technical Skills

In order to receive credit in the following subjects, you will have to meet performance standards generally employed in courses or demonstrate entry-level job skills.

- Accounting I, II
- Business Machines I, II
- Data Processing
- Merchandising
- Office Procedures
- Record Keeping
- Salesmanship
- Speedwriting
- Stenography I, II
- Typing I, II

Your Learning Coordinator will help you determine how much and what kind of credit you will earn when you complete your project. Your LC will also help you, if necessary, to develop or expand your project plan to earn the type of credit you desire.

Sample Projects

What does a good Project Plan look like? The samples on the following pages show projects, each worth 5 or 10 credits, focusing on different topics, issues, and careers. Browse through them for ideas. Look at them when planning your own project to see how to write goals and indicators. Use them to trigger ideas of your own, and as concrete examples of the kinds of things you can do with the resources available. By changing it to suit your interests, you can even take one of the sample projects and make it your own.

Sample Project 1

Advertising and the Consumer

Are you concerned about consumer rights? Would you like to explore the issue and acquire firsthand information about the advertising, selling, and buying of a product? If so, here is one way you might go about it.

- Retail stores and chains advertise to inform the public about the products they have for sale. Visit the advertising department of a large department store. What kinds of ads does it print? Are they aimed at men? At mothers? At children or teenagers? What happens from the idea stage to the final, printed advertisement? How expensive is advertising? Is it worth what it costs? Why? How does advertising work? What makes you buy something you've heard about in an ad?

- There are many different kinds of ads and all types of companies and organizations use advertising of one sort or another. Visit the advertising departments of more than one type of company. Compare how they use advertisements. Do some kinds of ads offend you? What kind? Why? What kinds of ads sell the most products? Why?

- How much do you, as a consumer, depend on advertising when buying things? Keep a record of the things you and your family or friends buy over a two-week period. How many of them were advertised in the newspaper or on radio or TV? How often do you go to a sale that's been advertised in the paper? Do you usually buy something there other than what was on sale? What kind of information do you think should be in an ad? Should products live up to their advertised claims?

- What can a consumer do when he or she wishes to complain about a product and the store says it is not responsible? Most big cities have a consumer complaint or consumer action agency. There are also branches of the Better Business Bureau in every city. Visit these agencies to learn about the types of complaints consumers make and what is done about them.

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect your interests and available resources, or write new ones to guide and document your activities.

Experience-Based Career Education

PROJECT SKETCH

Use this form to plan your resource orientations. Obtain your Learning Coordinator's approval before visiting a resource.

STUDENT Pat Rodriguez LC Mary Owens DATE 2/8/76

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

consumer rights

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. What should I do if I want to complain about something I bought?
2. What kinds of ads make people buy things?
3. How much that's said in an ad is true?
4. What preparation is needed for jobs in advertising?
5.
6.
7.
8.

III. WHAT RESOURCES WILL YOU USE?

RP/[✓ RO]/CR *(Circle one)* Rose's Department Store Phone 681-2112
Address 1501 Broadway [Jane Clark, Advertising Manager]

[✓ RP]/RO/CR *(Circle one)* Louis McGuckin, Public Rel. Mgr. Phone 894-4519
Address Union Chemical Company, 800 Jones Street

RP/RO/[✓ CR] *(Circle one)* Better Business Bureau Phone 656-0211
Address 1201 West Eighth Avenue

OTHER RESOURCES *(Give name of person or title and author of books, articles, etc.)*
Consumer Reports

I HAVE READ THE RESOURCE GUIDE(S) [X] Yes [ ] No (If not, give reasons)

APPROVED BY LC Mary Owens DATE 2/8/76

LC FOLLOW-UP	[X] The student has decided to do a project in this interest area. [ ] The student has decided not to pursue this interest further because:

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

Distribution: Original (White) - LC; Yellow - Student; Pink - Resource Analyst

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Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT *Pat Rodriguez* PROJECT NO. *1* PACKAGE *Commerce*

LC APPROVAL Mary Owens DATE 3/15/76 DATE PROJECT STARTED *2/8/76*

TECHNICAL ADVISOR(S) *(If any)* *Louis McGuckin*

I. PROJECT DESCRIPTION

A. *Title* *Advertising and the Consumer*

PLANNED CREDITS

		EBCE Credits
Subject Area(s)	1. *Introduction to Business*	5
	2. *Consumer Education*	5
	3.	

B. *Theme* *(Please give a brief description of your project)*

I plan to learn some of the purposes and techniques of advertising; to study the effect of advertising on the buying habits of myself, my family, and my friends; and to learn what a consumer can do if he feels that a product was falsely advertised or is defective.

C. *Questions to be Investigated:*

What is the purpose of retail advertising? Do all stores and companies advertise for the same reasons? What happens from the time an idea is thought of until an ad is printed? How often do most people buy products because of an advertisement? How do ads get people to buy things? Do (can) most products live up to their advertisements? What can a consumer do if he feels a product has been falsely advertised or is defective?

FOR LEARNING COORDINATOR USE ONLY

Mid-Term Review	*Initials*	*Date*	*End-of-Term Review*	*Initials*	*Date*

FWL-EBCE Rev.1/76

STUDENT PROJECT PLAN | Page 2 of 5

II. IDENTIFICATION OF RPs, ROs, & CRs

A. Completed Visits (Identify resources already visited for Orientation)

Resource Name	Address	Phone	RP	RO	CR	Hours Spent
Rose's Department Store Jane Clark, Ad Manager	1501 Broadway	681-2112		X		3½
Louis McGuckin	Union Chemical Company 800 Jones Street	894-4519	X			2
Better Business Bureau	1201 West 8th Avenue	656-0211			X	1

B. Planned Visits (Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)

Resource Name	Address	Phone	Acty Level*			RP	RO	CR	Est. Hours
			O	E	I				
Rose's Department Store Advertising Department	1501 Broadway	681-2112		X			X		10
Louis McGuckin	Union Chemical Company 800 Jones Street	894-4519		X		X			30
Better Business Bureau	1201 West 8th Avenue	656-0211	X					X	3
Service Corps of Retired Executives (SCORE)	Small Business Admin. 450 Gilman Avenue	556-4824	X					X	8

* O = Orientation; E = Exploration; I = Investigation

C. Related Reading/Research (Give Titles)

The Hidden Persuaders by Vance Packard

Advertising Age magazine

Reality in Advertising by Rosser Reeves

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS (See Resource Guides. Some sites require special insurance, health certificates, etc.)

A. Prequisites Make a reservation for the SCORE workshop.

B. Materials or Equipment

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits 57½ Hrs. Product Production 40 Hrs.

B. Reading 10 Hrs. Other (specify) 45 Hrs.

Consumer survey of family and friends - 15 hours
Research for advertising program - 30 hours

TOTAL HOURS 152½

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT 5/5/76

PLANNED PROJECT COMPLETION DATE 6/10/76

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 3 of 5

Student Pat Rodriquez LC Mary Owens Project Title Advertising and the Consumer

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 1: Understand the purposes and develop some techniques of advertising.					
a. Plan an advertising campaign for a small business (the RP will help me pick the business) including preparing the budget.	4/10	Louis McGuckin			
b. Develop the advertising program, including writing advertising copy, and doing the layout and illustrations.	6/10	Louis McGuckin			
c. Same as Indicator c for Goal 2.					
GOAL 2: Recognize some of the psychological concepts and techniques often used in advertising and know how to use them for my program.					
a. Explain orally how to analyze the characteristics of my potential market (age, sex, lifestyle, etc.) and the needs and motivations of the business' customers in order to gear the style and content of my advertising program to them.	2/30	Louis McGuckin			
b. Explain five advertising techniques such as testimonial, appealing to impulse, appealing to needs such as power and sex appeal.	2/30	Louis McGuckin			
c. Submit a formal report of my market research.	3/20	Louis McGuckin			
(continued on next page)					

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION

(See instructions on reverse side)

Page 4 of 5

Student Pat Rodriguez **LC** Mary Owens **Project Title** Advertising and the Consumer

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
d. Explain orally the goals of the advertising program selected and the psychological concepts and techniques it will use.	4/10	Louis McGuckin			
e. Photograph the store before and after my program has been initiated to record changes in the store layout and merchandise displays. Explain why I made the changes I did and how I anticipate the customers will be affected by them.	5/30	Louis McGuckin			
GOAL 3: Understand how the average consumer is affected by advertising.					
a. Analyze, in a written report, the results of a survey of a sample of 15 people including my family and friends to determine what locally and nationally advertised products they buy, how frequently they respond to advertised sales, how often they buy items other than those on sale, and what they respond to in an advertisement.	6/5	Louis McGuckin			
GOAL 4: Know where a consumer can turn if he has a complaint about an advertised product.					
a. Explain briefly in the Commerce Project Seminar the steps a person should take when he wants to complain about a defective product or misleading advertisement.	5/30	Package Coordinator			
(continued on next page)					

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FWL-EBCE Rev.1 76

STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 5 of 5

Student Pat Rodriguez **LC** Mary Owens **Project Title** Advertising and the Consumer

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 5: Know the advantages, disadvantages, and requirements of the careers of advertising manager and copy writer.					
a. Evaluate orally the careers of advertising manager and copy writer in terms of my own values, goals, and interests.	6/5	Mary Owens			
b. Describe orally what I would do after high school if I were to prepare myself to enter each of the above careers (training and education necessary, skills I would have to improve or acquire, where I would have to live, etc.).	6/5	Mary Owens			
GOAL 6: Learn how to effectively advertise my own skills.					
a. Develop a resume which includes my experience in advertising and explain why each item is included.	6/5	Mary Owens and Louis McGuckin			

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FWL-EBCE Rev.1 76

Experience-Based Career Education

COMMERCE PACKAGE GOAL CHECKLIST

STUDENT'S NAME *Pat Rodriguez* DATE *3/15/76*

PROJECT TITLE *Advertising and the Consumer*

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* ☒ reading ☐ listening ☒ observing *Communicating Information* ☐ writing ☒ speaking ☒ innovating
2. PROBLEM-SOLVING	*All elements*	☒ define the problem or issue ☒ identify sources of information ☒ use appropriate methods for gathering data ☒ organize the information obtained ☒ evaluate proposed solutions
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	☒ a. investigate two careers in terms of: ☒ roles and function of employee ☒ relation of career to other careers ☒ qualifications for entry ☒ working conditions, rewards, benefits ☒ current and projected demand ☒ union or professional affiliations ☒ effects of job on lifestyle ☒ your own evaluation of the career ☐ b. develop career entrance skills in two of the following areas: ☐ obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements ☒ preparing letters of inquiry, applications and resumés ☐ preparing for and performing in interviews ☐ acquiring job-entry skills and career-related experience

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COMMERCE PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from Goal 4, 5, or 6, or you can combine elements from each as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. ECONOMICS	*At least five elements or five comparable elements*	[ ] resources [ ] production [ ] distribution [ ] money [ ] property [ ] capitalism [ ] credit [ ] demand [ ] welfare [ ] taxes [ ] power [ ] labor [ ] recession [ ] poverty [ ] prosperity [ ] inflation [ ] other (specify) ____________
5. BUSINESS EDUCATION	*At least five elements or five comparable elements*	[ ] forms of business [ ] relationship between management and labor [ ] impact on business of changes in technology [ ] economic cycles [X] business/client relationship [ ] business forecasting [ ] management skills and techniques [ ] methods of obtaining capital [ ] business values and ethics [X] sales planning and marketing [X] advertising [ ] government policies and regulations [ ] business record keeping [ ] accounting models [X] other (specify) consumer needs/motivations

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COMMERCE PACKAGE GOAL CHECKLIST (Continued)

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
6. COMMERCE SKILLS AND TECHNIQUES	*At least five elements or five comparable elements*	[X] conducting surveys [X] analyzing statistical data [X] preparing a budget [X] writing business proposals or reports [ ] composing business letters [ ] operating office machines and equipment [ ] maintaining and performing minor repairs on office equipment [ ] using different kinds of filing systems [ ] posting receipts and expenses to ledgers [X] arranging displays of goods [ ] handling cash and credit transactions [X] writing advertising copy [X] illustrating advertising copy [ ] resolving interpersonal conflicts [ ] contributing to group efforts [ ] dealing with the public [ ] typing letters, memos, and reports [X] other (specify) conducting market research studies

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Sample Project 2

Opening a Small Business

If you are interested in finding out how to start a small business, this project is one approach. Its emphasis is on accounting principles and techniques, small-business management techniques, and aspects of the law important to small business.

- The Small Business Administration has considerable information about starting a small business. It is a good place to begin because it will give you ideas for the rest of your project.
- An accountant or bookkeeper, preferably for a small business, is the best source of information about the accounting principles and techniques you'll want to learn. A small-business proprietor can tell you the breadth of information you'll need. If you are interested and have the time, you might want to compare small and large-business accounting techniques to find out the differences between them.
- To learn some accounting principles and techniques and how to use them you will need to either engage in some intensive independent study (programmed texts are available) or take a course as well as work with a Resource Person in the field.
- The proprietor of a small business and the manager of a slightly larger company can help you learn about management techniques. The techniques used by professional managers are equally important to the owner/manager of a small business. Each person will have a slightly different point of view, but both could be helpful in your research.
- An RP at a bank can give you additional information about how to go about starting a business, particularly when it comes to getting loans. An insurance agent can provide you with information about needed insurance coverage.
- Legal aspects should be investigated with a lawyer. The county legal paper could be especially helpful since it is in such a paper that a new business announces itself. The editor of such a paper is usally also a lawyer.

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect your interests and available resources, or write new ones to guide and document your activities.

Experience-Based Career Education

PROJECT SKETCH

Use this form to plan your resource orientations. Obtain your Learning Coordinator's approval before visiting a resource.

STUDENT Billy Chow LC Paul Smith DATE 11/8/75

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

Owning my own business

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. What do you need to know to start a small business?
2. How do you manage a business?
3. Would I really like to go into business for myself?
4. What is a typical work day like for a small-business owner?
5.
6.
7.
8.

III. WHAT RESOURCES WILL YOU USE?

[✓ RP]/RO/CR *(Circle one)* Cecil Lewis Phone 839-6300
Address People's Bank, 163 Franklin Street

RP/RO/[✓ CR] *(Circle one)* Small Business Administration Phone 253-7772
Address 1040 Broadway, Suite 760

RP/RO/CR *(Circle one)* Phone
Address

OTHER RESOURCES *(Give name of person or title and author of books, articles, etc.)*

I HAVE READ THE RESOURCE GUIDE(S) [X]Yes [ ]No (If not, give reasons)

APPROVED BY LC Paul Smith DATE 11-8-75

LC FOLLOW-UP	[X] The student has decided to do a project in this interest area. [ ] The student has decided not to pursue this interest further because:

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE
YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

Distribution: Original (White) - LC; Yellow - Student; Pink - Resource Analyst

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Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT Billy Chow PROJECT NO. 2 PACKAGE Commerce

LC APPROVAL Paul Smith DATE 11-29-75 DATE PROJECT STARTED 11/8/75

TECHNICAL ADVISOR(S) *(If any)* Maria Green

I. PROJECT DESCRIPTION

A. *Title* Opening a Small Business

PLANNED CREDITS			EBCE Credits
Subject Area(s)	1.	Accounting I	5
	2.	Introduction to Business	5
	3.		

B. *Theme* *(Please give a brief description of your project)* The purpose of my project is to study accounting practices and management techniques and to learn the accounting and management skills necessary or helpful in opening and operating a small business. (I am thinking about opening a small store to sell indoor plants.)

C. *Questions to be Investigated:*
How important is accounting to running a small business? Must a small-business owner have good accounting skills? What are they? What management skills should a small-business owner know and be able to use? What local, state, and federal requirements (income taxes, licenses, etc.) must you meet to start and run a small business? Can a small-business owner support himself or herself and a family today? What must you know about the community in which you plan to do business in order to make it? What research should be done before opening a business? What steps are involved in getting a loan and actually opening the business? Do many small businesses fail? Why?

FOR LEARNING COORDINATOR USE ONLY

Mid-Term Review	*Initials*	*Date*	*End-of-Term Review*	*Initials*	*Date*

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STUDENT PROJECT PLAN | Page 2 of 4

II. IDENTIFICATION OF RPs, ROs, & CRs

A. *Completed Visits* (Identify resources already visited for Orientation)

Resource Name	Address	Phone	RP	RO	CR	Hours Spent
Cecil Lewis	People's Bank 163 Franklin Street	839-6300	X			1
Small Business Administration	1040 Broadway, Suite 760	253-7772			X	2

B. *Planned Visits* (Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)

Resource Name	Address	Phone	Acty Level*			RP	RO	CR	Est. Hours
			O	E	I				
Service Corps of Retired Executives (SCORE)	450 Gilman Avenue	556-4024		X				X	20
Maria Green	Maria's Green Thumb 110 West Third Avenue	261-6464		X		X			20
Jane P. Fitzer	Watermark, Price & Co. 2050 Powell St., #1425	842-0882		X		X			10
Jose Parra	Parra, McAnnally & Assoc. 3505 Broadway	692-2400	X			X			5

* O = Orientation; E = Exploration; I = Investigation

C. *Related Reading/Research* (Give Titles)

Managing Your Own Business, Principles in Accounting, Management of Your Business on a Small and a Large Scale, Finance and Capital Needs for the Business (all available from the Small Business Administration or SCORE); Accounting Practices (programmed text)

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS (See Resource Guides. Some sites require special insurance, health certificates, etc.)

A. Prequisites make reservations for the SCORE workshop

B. Materials or Equipment

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits 58 Hrs. Product Production 30 Hrs.

B. Reading 10 Hrs. Other (specify) (programmed text) 40 Hrs.

TOTAL HOURS 138

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT 12/20/75

PLANNED PROJECT COMPLETION DATE 1/30/76

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 3 of 4

Student Billy Chow LC Paul Smith Project Title Opening a Small Business

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 1: Understand the steps involved and information needed to open a small business.					
a. Explain, in the Commerce Project Seminar, the research and preparation necessary to open a small business, including the legal and technical steps which must be taken prior to opening the doors, predicting whether the business will be successful in a particular community, and how to obtain the necessary capital.	12/15	Package Coordinator			
GOAL 2: Understand the purpose, procedures, principles, and methods of accounting necessary for operating a small business.					
a. Compare, in a written report, two ways a small-business owner could keep his financial records.	1/20	Jane Fitzer Paul Smith			
b. Evaluate each method in the report in terms of its appropriateness and effectiveness for operating a small plant store.	1/20	Jane Fitzer Paul Smith			
c. Prepare sample ledger entries to illustrate both methods.	1/20	Jane Fitzer Paul Smith			
d. Set up and explain the purpose of a sample set of financial records for a plant store, including operating budgets, inventory and order records, cash flow ledgers, accounts	1/25	Maria Green			
(continued on next page)					

USE AS MANY COPIES OF THIS PAGE AS ARE NECESSARY

STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 4 of 4

Student Billy Chow LC Paul Smith Project Title Opening a Small Business

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
receivable, profit statements, balance sheets, net worth statements and tax returns.					
e. Complete a programmed text in accounting. Pass unit tests with 90% accuracy.	1/15	Skills Specialist			
GOAL 3: Decide which management techniques are most important to a small-business owner.					
a. Complete a list of management skills and techniques in their order of importance. In the Commerce Project Seminar, share these with the other students and explain the reasons for my rankings to the group.	1/28	Package Coordinator			
GOAL 4: Understand the differences between a management career with a large company and a career as a small-business owner and know how my interests and abilities relate to both careers.					
a. Complete Career Orientation Guides for a small-business ownership and manager of a large company. Compare these two careers, in an oral report to the Commerce Project Seminar, including advantages and disadvantages of each, which I would prefer, and why.	1/28	Package Coordinator			

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Experience-Based Career Education	COMMERCE PACKAGE GOAL CHECKLIST

STUDENT'S NAME *Billy Chow* DATE 11/4/75

PROJECT TITLE *Opening a Small Business*

GOAL	GOAL REQUIREMENTS -	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* [X] reading [ ] listening [ ] observing *Communicating Information* [ ] writing [X] speaking [ ] innovating
2. PROBLEM-SOLVING	*All elements*	[X] define the problem or issue [X] identify sources of information [X] use appropriate methods for gathering data [X] organize the information obtained [X] evaluate proposed solutions
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	[X] a. investigate two careers in terms of: [X] roles and function of employee [X] relation of career to other careers [X] qualifications for entry [X] working conditions, rewards, benefits [X] current and projected demand [X] union or professional affiliations [X] effects of job on lifestyle [X] your own evaluation of the career [ ] b. develop career entrance skills in two of the following areas: [ ] obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements [ ] preparing letters of inquiry, applications and resumés [ ] preparing for and performing in interviews [ ] acquiring job-entry skills and career-related experience

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COMMERCE PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from Goal 4, 5, or 6, or you can combine elements from each as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. ECONOMICS	***At least five elements or five comparable elements***	☐ resources ☐ production ☐ distribution ☐ money ☐ property ☐ capitalism ☐ credit ☐ demand ☐ welfare ☐ taxes ☐ power ☐ labor ☐ recession ☐ poverty ☐ prosperity ☐ inflation ☐ other (specify) ____________
5. BUSINESS EDUCATION	***At least five elements or five comparable elements***	☐ forms of business ☐ relationship between management and labor ☐ impact on business of changes in technology ☐ economic cycles ☐ business/client relationship ☒ business forecasting ☒ management skills and techniques ☒ methods of obtaining capital ☐ business values and ethics ☐ sales planning and marketing ☐ advertising ☒ government policies and regulations ☒ business record keeping ☒ accounting models ☐ other (specify) ____________

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COMMERCE PACKAGE GOAL CHECKLIST (Continued)		
GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
6. COMMERCE SKILLS AND TECHNIQUES	*At least five elements or five comparable elements*	☐ conducting surveys ☐ analyzing statistical data ☒ preparing a budget ☐ writing business proposals or reports ☐ composing business letters ☐ operating office machines and equipment ☐ maintaining and performing minor repairs on office equipment ☐ using different kinds of filing systems ☒ posting receipts and expenses to ledgers ☐ arranging displays of goods ☐ handling cash and credit transactions ☐ writing advertising copy ☐ illustrating advertising copy ☐ resolving interpersonal conflicts ☐ contributing to group efforts ☐ dealing with the public ☐ typing letters, memos, and reports ☒ other (specify) *(1) setting up inventory and order records, cash flow ledgers, accounts receivable, profit statements, balance sheets,* ☒ *and net worth statements; (2) completing tax returns*

Sample Project 3

Exploring Careers in Sales

What is your image of a salesperson? A slick manipulator? Someone pounding car hoods on TV? Or a person who really likes working with people? Is it possible to be a successful salesperson and still be genuinely concerned about the needs of customers? If you think you might like a career in sales but are not sure what kind, the following project is one way you might explore the opportunities available in the field.

- If you want to begin by examining a company that sells a service, one place to look is an insurance agent's office. Another type is an agency that sells clerical, secretarial, bookkeeping, accounting, and similar business services to people who cannot afford their own clerical and secretarial help on a full-time basis. You might compare the services each company offers and how the differences between those services affect the way they are sold.
- A large retail store, such as a department store, will provide a sharp contrast to the environment, product, and customer of a small firm that sells a service. Here you can explore the differences in sales careers and try to find out what causes those differences. You can also learn how to handle over-the-counter sales transactions.
- If you spend some time in a small retail store, you can discover how company size can affect one's career.
- Does a wholesaler approach sales from a different standpoint than a retailer? Visit a wholesale company to find out. Are there any companies or situations which require different sales skills? What are they?

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect your interests and available resources, or write new ones to guide and document your activities.

Experience-Based Career Education

PROJECT SKETCH

Use this form to plan your resource Orientations. Obtain your Learning Coordinator's approval before visiting a resource.

STUDENT *Gerri Brown* LC *Jim Connors* DATE *2/7/76*

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

The career of selling

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. *What are the different kinds of selling careers?*
2. *How are they different?*
3. *What kinds of people go into sales?*
4. *What kinds of selling techniques are used by different salespeople?*
5. *What are some of the advantages and disadvantages of a sales career?*
6.
7.
8.

III. WHAT RESOURCES WILL YOU USE?

[✓ RP]/RO/CR *(Circle one)* *Jose Parra* Phone *692-2400*
Address *3505 Broadway*

RP/[✓ RO]/CR *(Circle one)* *Rose's Department Store* Phone *681-2112*
Address *1501 Broadway*

RP/RO/CR *(Circle one)* Phone
Address

OTHER RESOURCES *(Give name of person or title and author of books, articles, etc.)*

I HAVE READ THE RESOURCE GUIDE(S) ☒ Yes ☐ No (If not, give reasons)

APPROVED BY LC *Jim Connors* DATE *2-7-76*

LC FOLLOW-UP

☒ The student has decided to do a project in this interest area.
☐ The student has decided not to pursue this interest further because:

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

Distribution: Original (White) - LC; Yellow - Student; Pink - Resource Analyst

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Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT Gerri Brown PROJECT NO. 3 PACKAGE Commerce

LC APPROVAL Jim Connors DATE 2-15-76 DATE PROJECT STARTED 2/7/76

TECHNICAL ADVISOR(S) *(If any)*

I. PROJECT DESCRIPTION

A. *Title* Exploring Careers in Sales

PLANNED CREDITS		EBCE Credits
Subject Area(s)	1. Salesmanship	5
	2.	
	3.	

B. *Theme* *(Please give a brief description of your project)* The theme of this project is to learn about some of the different careers possible in sales and to acquire salesmanship skills and techniques.

C. *Questions to be Investigated:*
What are some of the major types of sales careers? How do they differ? Why do they differ? What personal qualities are necessary and desirable in order to be a successful salesperson? What are the advantages and disadvantages of different types of sales careers? Is it more difficult to sell one type of product than another? Why? Is it more difficult to sell a service than a product? Why? What skills and techniques apply to all sales careers?

FOR LEARNING COORDINATOR USE ONLY

Mid-Term Review *Initials* *Date*	*End-of-Term Review* *Initials* *Date*

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STUDENT PROJECT PLAN	Page 2 of 4

II. IDENTIFICATION OF RPs, ROs, & CRs

A. Completed Visits (Identify resources already visited for Orientation)

Resource Name	Address	Phone	RP	RO	CR	Hours Spent
Jose Parra	Parra, McAnnally & Assoc. 3505 Broadway	692-2400	X			2
Rose's Department Store James McGraw, Buyer	1501 Broadway	681-2112		X		4

B. Planned Visits (Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)

Resource Name	Address	Phone	Acty *Level			RP	RO	CR	Est. Hours
			O	E	I				
Jose Parra	Parra, McAnnally & Assoc. 3505 Broadway	692-2400	X			X			6
Rose's Department Store James McGraw, Buyer	1501 Broadway	681-2112		X			X		20
Lucas Murphy	Zolex Duplicating Mach. 800 Edgewater Drive	365-2020			X	X			45

* O = Orientation; E = Exploration; I = Investigation

C. Related Reading/Research (Give Titles)

Business Week magazine

Up the Organization by Robert Townsend

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS (See Resource Guides. Some sites require special insurance, health certificates, etc.)

A. Prequisites ________

B. Materials or Equipment ________

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits 77 Hrs. Product Production 25 Hrs.

B. Reading 10 Hrs. Other (specify) ____ Hrs.

TOTAL HOURS 112

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT ________

PLANNED PROJECT COMPLETION DATE ________

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 3 of 4

Student Gerri Brown LC Jim Connors Project Title Exploring Careers in Sales

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 1: Identify the major types of sales careers (such as selling services, selling products, advertising manager, etc.) and the skills and other requirements necessary for each.					
a. Chart four major types of possible sales careers and the skills (sales planning, interpersonal, etc.) and requirements (education, training, etc.) necessary for each.	3/1	Lucas Murphy			
b. Analyze in a written report the reasons for differences between sales careers, their relative difficulty, and the lifestyle and values associated with each.	3/10	Lucas Murphy			
GOAL 2: Know how two of the major types of sales careers relate to my interests and abilities.					
a. In the report, evaluate two of the major types of sales careers in terms of my own values, interests, needs, goals, and abilities.	3/10	Jim Connors			
GOAL 3: Acquire the most important sales techniques and skills used in all sales careers.					
a. Demonstrate sales techniques and skills in three different sales situations using role playing simulations with the RP's help. Situations will include:	4/15	Package Coordinator			
(continued on next page)					

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION

(See instructions on reverse side)

Page 4 of 4

Student Gerri Brown LC Jim Connors Project Title Exploring Careers in Sales

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
• Helping the customer analyze his own needs (e.g., what kind of duplicating capability his business needs, how it will be used). • Describing the advantages and disadvantages of different models of the same kind of product. • Handling an irate customer.					
b. Given a typical sales problem situation by the RP, identify sources of information, propose possible solutions, choose the best solution and explain my reasons.	4/20	Lucas Murphy			
c. Demonstrate ability to handle over-the-counter sales, including cash and credit transactions.	4/25	James McGraw			

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Experience-Based Career Education	COMMERCE PACKAGE GOAL CHECKLIST

STUDENT'S NAME *Gerri Brown* DATE *2/15/76*

PROJECT TITLE *Exploring Careers in Sales*

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* ☒ reading ☒ listening ☐ observing *Communicating Information* ☒ writing ☒ speaking ☐ innovating
2. PROBLEM-SOLVING	*All elements*	☒ define the problem or issue ☒ identify sources of information ☒ use appropriate methods for gathering data ☒ organize the information obtained ☒ evaluate proposed solutions
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	☒ a. investigate two careers in terms of: ☒ roles and function of employee ☒ relation of career to other careers ☒ qualifications for entry ☒ working conditions, rewards, benefits ☒ current and projected demand ☒ union or professional affiliations ☒ effects of job on lifestyle ☒ your own evaluation of the career ☒ b. develop career entrance skills in two of the following areas: ☐ obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements ☐ preparing letters of inquiry, applications and resumés ☐ preparing for and performing in interviews ☒ acquiring job-entry skills and career-related experience

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COMMERCE PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from Goal 4, 5, or 6, or you can combine elements from each as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. ECONOMICS	*At least five elements or five comparable elements*	☐ resources ☐ production ☐ distribution ☐ money ☐ property ☐ capitalism ☐ credit ☐ demand ☐ welfare ☐ taxes ☐ power ☐ labor ☐ recession ☐ poverty ☐ prosperity ☐ inflation ☐ other (specify) ____________
5. BUSINESS EDUCATION	*At least five elements or five comparable elements*	☐ forms of business ☐ relationship between management and labor ☐ impact on business of changes in technology ☐ economic cycles ☒ business/client relationship ☐ business forecasting ☐ management skills and techniques ☐ methods of obtaining capital ☐ business values and ethics ☒ sales planning and marketing ☐ advertising ☐ government policies and regulations ☐ business record keeping ☐ accounting models ☐ other (specify) ____________

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COMMERCE PACKAGE GOAL CHECKLIST (Continued)

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
6. COMMERCE SKILLS AND TECHNIQUES	*At least five elements or five comparable elements*	[ ] conducting surveys [ ] analyzing statistical data [ ] preparing a budget [ ] writing business proposals or reports [ ] composing business letters [ ] operating office machines and equipment [ ] maintaining and performing minor repairs on office equipment [ ] using different kinds of filing systems [ ] posting receipts and expenses to ledgers [ ] arranging displays of goods [X] handling cash and credit transactions [ ] writing advertising copy [ ] illustrating advertising copy [X] resolving interpersonal conflicts [ ] contributing to group efforts [X] dealing with the public [ ] typing letters, memos, and reports [X] other (specify) *(1) helping customers analyze* [X] *their needs; (2) knowledge of and ability to communicate information about a product*

Sample Project 4

Inflation

Inflation is a major world-wide problem and has become one of the biggest social and political issues this country currently faces. The purpose of this project is to try to define inflation, determine its causes, and analyze possible solutions.

- In order to define the problem, its causes, and some possible cures, visit several people who are bound to have differing viewpoints, such as a bank officer, an economist or economics instructor, a person in business management or in business for him or herself, a politician, and an accountant. Prepare for the interviews by writing down in advance the questions you will ask each of these people. You may want to record the interviews on tape if the individuals don't object.

- The public library will have a wide variety of books and articles which discuss the various types of inflation (e.g., demand-push vs. cost-pull) and their causes. During World War II, this country suffered a period of severe inflation. If you read some of the economic literature on that period of time, it may help you to understand the problems this country faces now. Are we undergoing the same kind of inflation? What are the similarities or differences?

- Visit one or more union representatives or members. What is labor's viewpoint on inflation? How do wage increases affect prices? How do price increases affect wages?

- An economist may help you investigate such questions as: What is the history of inflation in the United States? When did this country first begin to experience it? What were some of its original causes? According to whom? What solutions have been proposed to fight inflation in the past 20 years? Which ones have been tried? How effective have they been? Why? What solutions are currently being proposed?

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect your interests and available resources, or write new ones to guide and document your activities.

Experience-Based Career Education

PROJECT SKETCH

Use this form to plan your resource orientations. Obtain your Learning Coordinator's approval before visiting a resource.

STUDENT Sam Blair LC Alice Garcia DATE 10/12/76

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

commerce

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. Why do prices keep rising?
2. How do rising prices affect the whole economy?
3. What does "devaluing the dollar" mean?
4.
5.
6.
7.
8.

III. WHAT RESOURCES WILL YOU USE?

[✓ RP]/RO/CR *(Circle one)* Ann Lancaster Phone 942-7782
Address Bay Region Marine Exchange, 303 Waterfront

[✓ RP]/RO/CR *(Circle one)* Vince Pellinacci Phone 963-0370
Address Senator Debs' Office, U.S. Post Office, Room 509, 17th Street

[✓ RP]/RO/CR *(Circle one)* Jane P. Fitzer Phone 842-0882
Address Watermark, Price and Company, 2050 Powell Street, Suite 1425

OTHER RESOURCES *(Give name of person or title and author of books, articles, etc.)*

I HAVE READ THE RESOURCE GUIDE(S) ☒ Yes ☐ No (If not, give reasons)

APPROVED BY LC Alice Garcia DATE 10/2/76

LC FOLLOW-UP

☒ The student has decided to do a project in this interest area.
☐ The student has decided not to pursue this interest further because:

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE
YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

Distribution: Original (White) - LC; Yellow - Student; Pink - Resource Analyst

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Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT Sam Blair PROJECT NO. 4 PACKAGE Commerce

LC APPROVAL Alice Garcia DATE 10/30/76 DATE PROJECT STARTED 10/12/76

TECHNICAL ADVISOR(S) *(If any)*

I. PROJECT DESCRIPTION

A. *Title* Inflation: Its Causes and Cures

PLANNED CREDITS

Subject Area(s)		EBCE Credits
1.	Economics	5
2.		
3.		

B. *Theme* *(Please give a brief description of your project)*

The theme of this project is the study of inflation: what it is, who is most affected by it, what kinds have been identified, what their causes are, and what some possible solutions may be.

C. *Questions to be Investigated:*

What is inflation? What is the cost-of-living index? What causes inflation? Has there always been inflation in the United States? If not, when did it begin? What caused it then? Are the same circumstances or problems causing inflation now? Can it be stopped? How? What solutions have been tried in the past 10 or 20 years? What were the results? Of all the solutions now being proposed, which one(s) seems the most likely to succeed? Why? What would happen if inflation were never stopped? Are there people (economists, politicians, business executives) who think that it is not necessary to stop inflation? Why?

FOR LEARNING COORDINATOR USE ONLY

Mid-Term Review	*Initials*	*Date*
End-of-Term Review	*Initials*	*Date*

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STUDENT PROJECT PLAN | *Page 2 of 4*

II. IDENTIFICATION OF RPs, ROs, & CRs

A. Completed Visits *(Identify resources already visited for Orientation)*

Resource Name	Address	Phone	RP	RO	CR	Hours Spent
Ann Lancaster	Bay Region Marine Exchange, 303 Waterfront	942-7782	X			2
Vince Pellinacci Senator Debs' Office	U.S. Post Office, Rm.509 17th Street	963-0370	X			2
Jane P. Fitzer	Watermark, Price & Co. 2050 Powell Street, #1425	842-0882	X			3

B. Planned Visits *(Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)*

Resource Name	Address	Phone	Acty *Level			RP	RO	CR	Est. Hours
			O	E	I				
Ella Harris	Clay Book Company 74 Oak Street	895-6860	X			X			3
Ann Lancaster	Bay Region Marine Exchange, 303 Waterfront	942-7782		X		X			20
Social Security Administration	23 Grand Avenue	465-0786	X					X	4
Cecil Lewis	People's Bank 163 Franklin Street	839-6300	X			X			8

* O = Orientation; E = Exploration; I = Investigation

C. Related Reading/Research *(Give Titles)*

Understanding Macroeconomics, Robert Heilbroner

Inflation: Demand-Pull or Cost-Push, R. Perlman, ed.

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS *(See Resource Guides. Some sites require special insurance, health certificates, etc.)*

A. Prequisites ____________

B. Materials or Equipment ____________

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits 42 Hrs. Product Production 15 Hrs.

B. Reading 25 Hrs. Other (specify) ____ Hrs.

TOTAL HOURS 82

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT 11/15/76

PLANNED PROJECT COMPLETION DATE 12/20/76

FWL-EBCE Rev.1/76

STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 3 of 4

Student Sam Blair LC Alice Garcia Project Title Inflation

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 1: Understand what inflation is, what causes it and why.					
a. Diagram the relationship between prices, wages, gross national product and the cost-of-living index.	11/15	Alice Garcia			
b. Define, in the project seminar, the cost-of-living index and its relationship to me and my family as an indicator of how inflation affects us. Explain the types of inflation and how they are defined.	11/15	Package Coordinator			
c. Explain the relationships between inflation, recession, and depression.	11/30	Package Coordinator			
GOAL 2: Know the solutions that have been tried in the past, their results, and currently proposed solutions.					
a. Analyze, in a written report, three solutions which the federal government has tried to use to stop inflation, the degree of success or failure of each, and, taking one currently proposed solution, state whether I think it might work and why.	11/30	Alice Garcia & Skills Specialist			
(continued on next page)					

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 4 of 4

Student *Sam Blair* LC *Alice Garcia* Project Title *Inflation*

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 3: *Estimate the effects on the American economy of perpetual inflation.*					
a. *Describe, in the project seminar, the possible effects of perpetual double-digit inflation in the United States, lead a discussion of the possible results and how they would affect the average person, including a worker, a small-business owner, and a senior citizen on social security.*	*12/5*	*Package Coordinator*			
GOAL 4: *Know about two careers, the roles they play in inflation-related issues, and how they relate to my interests and abilities.*					
a. *Evaluate, on Career Orientation Guides, the careers of bank president and economist. Discuss their roles in inflation-related issues and how the careers relate to my interests, goals, values, and abilities.*	*12/20*	*Alice Garcia*			

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Experience-Based Career Education	COMMERCE PACKAGE GOAL CHECKLIST

STUDENT'S NAME *Sam Blair* DATE *10/30/76*

PROJECT TITLE *Inflation*

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* ☒ reading ☐ listening ☐ observing *Communicating Information* ☒ writing ☒ speaking ☒ innovating
2. PROBLEM-SOLVING	*All elements*	☒ define the problem or issue ☒ identify sources of information ☒ use appropriate methods for gathering data ☒ organize the information obtained ☒ evaluate proposed solutions
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	☒ a. investigate two careers in terms of: ☒ roles and function of employee ☒ relation of career to other careers ☒ qualifications for entry ☒ working conditions, rewards, benefits ☒ current and projected demand ☒ union or professional affiliations ☒ effects of job on lifestyle ☒ your own evaluation of the career ☐ b. develop career entrance skills in two of the following areas: ☐ obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements ☐ preparing letters of inquiry, applications and resumés ☐ preparing for and performing in interviews ☐ acquiring job-entry skills and career-related experience

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COMMERCE PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from Goal 4, 5, or 6, or you can combine elements from each as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. ECONOMICS	*At least five elements or five comparable elements*	☐ resources ☐ production ☐ distribution ☐ money ☐ property ☐ capitalism ☐ credit ☒ demand (effect on prices) ☐ welfare ☐ taxes ☐ power ☐ labor ☒ recession ☐ poverty ☒ prosperity ☒ inflation ☒ other (specify) (1) economic measures: GNP ☒ and cost-of-living index; (2) federal economic policies on inflation
5. BUSINESS EDUCATION	*At least five elements or five comparable elements*	☐ forms of business ☐ relationship between management and labor ☐ impact on business of changes in technology ☐ economic cycles ☐ business/client relationship ☐ business forecasting ☐ management skills and techniques ☐ methods of obtaining capital ☐ business values and ethics ☐ sales planning and marketing ☐ advertising ☐ government policies and regulations ☐ business record keeping ☐ accounting models ☐ other (specify) ________

COMMERCE PACKAGE GOAL CHECKLIST (Continued)

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
6. COMMERCE SKILLS AND TECHNIQUES	*At least five elements or five comparable elements*	☐ conducting surveys ☐ analyzing statistical data ☐ preparing a budget ☐ writing business proposals or reports ☐ composing business letters ☐ operating office machines and equipment ☐ maintaining and performing minor repairs on office equipment ☐ using different kinds of filing systems ☐ posting receipts and expenses to ledgers ☐ arranging displays of goods ☐ handling cash and credit transactions ☐ writing advertising copy ☐ illustrating advertising copy ☐ resolving interpersonal conflicts ☐ contributing to group efforts ☐ dealing with the public ☐ typing letters, memos, and reports ☐ other (specify)____________________ ______________________________ ______________________________

FWL-EBCE Rev.1/76

Sample Project 5

The Insurance Business

Except perhaps for Great Britain, the United States is the insurance capital of the world. What is the insurance business about? How is insurance sold and who sells it? What role does insurance play in our economy? What kinds of insurance should the average person have? What kinds of insurance are provided through the government? What effect does government competition or regulation of the insurance industry have on the cost of insurance? These are some of the questions you can answer through this project.

- You can obtain most of your information from one resource if you do a thorough Investigation at a small insurance firm. Find out how they operate, what their office procedures are, and work with sales personnel, office staff, and management. The size of the firm can be important because the smaller it is, the greater your chances are of learning about every aspect of it.

- Visit the Social Security Administration office and the State Unemployment Insurance office. Find out about these government-sponsored insurance programs. What are their purposes? How are they financed? What is the amount of benefits a claimant can receive? Who is eligible for benefits?

- Write or talk with your state or federal legislators. What is their position on federal health insurance for everyone, on no-fault insurance legislation, on government sponsorship of malpractice coverage for physicians? Do you agree with them? Why or why not?

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect your interests and available resources, or write new ones to guide and document your activities.

Experience-Based Career Education

PROJECT SKETCH

Use this form to plan your resource Orientations. Obtain your Learning Coordinator's approval before visiting a resource.

STUDENT Jane Williams LC Ted Grant DATE 9/27/76

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

the insurance business

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. Would I like insurance sales as a career? What kind?
2. What are the requirements for licensing of brokers and brokerages?
3. What are the forms, procedures, and administrative duties of salesmen and underwriters?
4. What are the differences between underwriters, brokers, brokerages, agents, and investment offices?
5.
6.

III. WHAT RESOURCES WILL YOU USE?

[✓ RP]/RO/CR *(Circle one)* Mark McAnnally Phone 692-2400
Address Parra, McAnnally and Associates, 3505 Broadway

RP/RO/CR *(Circle one)* Phone
Address

RP/RO/CR *(Circle one)* Phone
Address

OTHER RESOURCES *(Give name of person or title and author of books, articles, etc.)*

I HAVE READ THE RESOURCE GUIDE(S) [X]Yes [ ]No (If not, give reasons)

APPROVED BY LC Ted Grant DATE 9/27/76

LC FOLLOW-UP

[X] The student has decided to do a project in this interest area.
[ ] The student has decided not to pursue this interest further because:

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

Distribution: Original (White) - LC; Yellow - Student; Pink - Resource Analyst

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Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT Jane Williams PROJECT NO. 5 PACKAGE Commerce

LC APPROVAL Ted Grant DATE 10/15/76 DATE PROJECT STARTED 9/27/76

TECHNICAL ADVISOR(S) *(If any)* Mark McAnnally

I. PROJECT DESCRIPTION

A. *Title* The Insurance Business

PLANNED CREDITS		EBCE Credits
Subject Area(s)	*1.* Introduction to Business	5
	2.	
	3.	

B. Theme (Please give a brief description of your project)

The theme of this project is to understand what kinds of insurance there are, when they are used, what the procedures are for selling insurance and processing claims, and how important it is to the American economy.

C. Questions to be Investigated:

How many kinds of insurance are there? What are they for? Do most people really need much insurance? Why? What kinds? How does an insurance broker sell insurance? Who pays an insurance agent's salary? How are claims processed? How big a role in our economy does insurance play? How do insurance companies make a profit? What kinds of insurance are provided by the government? What kinds should be provided by government? How do government regulations affect the insurance industry?

FOR LEARNING COORDINATOR USE ONLY

Mid-Term Review	*Initials*	*Date*	*End-of-Term Review*	*Initials*	*Date*

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STUDENT PROJECT PLAN | Page 2 of 4

II. IDENTIFICATION OF RPs, ROs, & CRs

A. Completed Visits (Identify resources already visited for Orientation)

Resource Name	Address	Phone	RP	RO	CR	Hours Spent
Mark McAnnally	Parra, McAnnally & Assoc. 3505 Broadway	692-2400	X			2

B. Planned Visits (Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)

Resource Name	Address	Phone	Acty *Level			RP	RO	CR	Est. Hours
			O	E	I				
Mark McAnnally	Parra, McAnnally & Assoc. 3505 Broadway	692-2400			X	X			40
Vince Pellinacci Senator Debs' Office	U.S. Post Office, Rm.509 17th Street	963-0370	X			X			5
Social Security Administration	23 Grand Avenue	465-0786	X					X	5

* O = Orientation; E = Exploration; I = Investigation

C. Related Reading/Research (Give Titles)

Insurance Made Easy, booklet put out by the Safeco Insurance Company

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS (See Resource Guides. Some sites require special insurance, health certificates, etc.)

A. Prequisites

B. Materials or Equipment

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits 52 Hrs. Product Production 15 Hrs.

B. Reading 10 Hrs. Other (specify) Hrs.

TOTAL HOURS 77

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT 11/30/76

PLANNED PROJECT COMPLETION DATE 1/7/77

STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 3 of 4

Student Jane Williams *LC* Ted Grant *Project Title* The Insurance Business

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 1: Know the various kinds of insurance and what they are for (e.g., health, life, property loss).					
a. Make a chart which shows 15 various types of insurance a person or a company can buy, what they are for, and who usually buys those types of insurance.	11/15	Mark McAnnally			
b. Chart the kinds of insurance which are provided or offered through the government (including medicare, social security, unemployment insurance, etc.), and show the purpose of each.	11/15	Vince Pellinacci			
c. List the insurance needs of the average person, identify the usual sources of each kind of coverage (government, employer, or personal policy), and identify the kinds and amounts of insurance an individual must obtain for himself.	11/15	Ted Grant			
GOAL 2: Understand the role of insurance in the American economy.					
a. Write a report analyzing how much the "average" family pays for insurance a year, the kind of insurance coverage they buy, and how much a moderate-sized company pays for insurance every year; and evaluating the average person's need for insurance in our society. Include as background in	11/30	Ted Grant			
(continued on next page)					

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION

(See instructions on reverse side)

Page 4 of 4

Student Jane Williams LC Ted Grant Project Title The Insurance Business

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
the report a discussion of the history of the insurance business, how big a business it is today, and the effects of government competition and regulation on the insurance industry.					
GOAL 3: Understand insurance claims processing procedures and general sales techniques					
a. Given the type of coverage, insurance, and claim, complete the appropriate forms and explain the proper filing procedures.	11/30	Mark McAnnally			
b. Stage a simulated sale of life insurance, during a Commerce Project Seminar meeting, which demonstrates the most important sales techniques and shows the interaction between salesperson and client.	12/5	Package Coordinator			
c. Explain to the project seminar the legal requirements and benefits of various kinds of automobile insurance. Also explain the procedures to be followed in reporting an accident and filing a claim.	12/5	Package Coordinator			
GOAL 4: Know the requirements, advantages, and disadvantages of a career as an insurance salesperson and as a claims investigator.					
a. Complete Career Orientation Guides and evaluate the two careers in terms of my own interests, values, and goals to the project seminar group.	1/7	Package Coordinator			

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FWL-EBCE Rev.1/76

Experience-Based Career Education	COMMERCE PACKAGE GOAL CHECKLIST

STUDENT'S NAME *Jane Williams* DATE *10/15/76*

PROJECT TITLE *The Insurance Business*

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* [X] reading [ ] listening [X] observing *Communicating Information* [X] writing [ ] speaking [X] innovating
2. PROBLEM-SOLVING	*All elements*	[X] define the problem or issue [X] identify sources of information [X] use appropriate methods for gathering data [X] organize the information obtained [X] evaluate proposed solutions
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	[X] a. investigate two careers in terms of: [X] roles and function of employee [X] relation of career to other careers [X] qualifications for entry [X] working conditions, rewards, benefits [X] current and projected demand [X] union or professional affiliations [X] effects of job on lifestyle [X] your own evaluation of the career [ ] b. develop career entrance skills in two of the following areas: [ ] obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements [ ] preparing letters of inquiry, applications and resumés [ ] preparing for and performing in interviews [ ] acquiring job-entry skills and career-related experience

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COMMERCE PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from Goal 4, 5, or 6, or you can combine elements from each as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. ECONOMICS	*At least five elements or five comparable elements*	[ ] resources [ ] production [ ] distribution [ ] money [ ] property [ ] capitalism [ ] credit [ ] demand [ ] welfare [ ] taxes [ ] power [ ] labor [ ] recession [ ] poverty [ ] prosperity [ ] inflation [ ] other (specify) ______
5. BUSINESS EDUCATION	*At least five elements or five comparable elements*	[ ] forms of business [ ] relationship between management and labor [ ] impact on business of changes in technology [ ] economic cycles [X] business/client relationship [ ] business forecasting [ ] management skills and techniques [ ] methods of obtaining capital [ ] business values and ethics [ ] sales planning and marketing [ ] advertising [X] government policies and regulations [ ] business record keeping [ ] accounting models [X] other (specify) (1) the role of insurance in [X] the American economy; (2) effects of government competition with private enterprise; [X] (3) individual and business insurance needs

FWL-EBCE Rev.1/76

COMMERCE PACKAGE GOAL CHECKLIST (Continued)

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
6. COMMERCE SKILLS AND TECHNIQUES	*At least five elements or five comparable elements*	☐ conducting surveys ☐ analyzing statistical data ☐ preparing a budget ☐ writing business proposals or reports ☐ composing business letters ☐ operating office machines and equipment ☐ maintaining and performing minor repairs on office equipment ☐ using different kinds of filing systems ☐ posting receipts and expenses to ledgers ☐ arranging displays of goods ☐ handling cash and credit transactions ☐ writing advertising copy ☐ illustrating advertising copy ☐ resolving interpersonal conflicts ☐ contributing to group efforts ☐ dealing with the public ☐ typing letters, memos, and reports ☒ other (specify) (1) insurance claims process- ☒ ing procedures; (2) general sales techniques, including matching a client with the appro- priate type of insurance

Resources

Resource Persons

(Effective August 1975)

Herb Anderson	Personnel Analyst for the county. Discuss careers in personnel management, civil service employment opportunities, and how to prepare for job interviews. (Orientations only)
Janice Bender	Staff Organizer and Grievance Officer for Local 51 of the American Teachers' Federation (ATF). Learn how to organize teachers and instructional assistants for union membership; help poll and present issues to the school board; attend parent and community group meetings; and learn general office work. Learn about labor unions and union organizing.
Sonya Bernstein	Operating Manager of the cooperatively owned Unlimited Books. Acquire skills such as interacting with customers, inventorying stock, and arranging shelves. Learn business management skills and techniques.
Hayden Cohen	Executive Director of the American Association of Architects (AAA). Learn about careers available in management. Discuss management techniques, the AAA's purpose and function, and the political impact of the AAA on local issues. (Orientations only)
Irene Davis	Mechanic at the Fifth Wheel bicycle store. Acquire skills and experience in bike repair, design, maintenance, and sales.
George Dietrich	Staff Assistant and Hearing Officer on the City Manager's staff. Attend City Council meetings; visit many of the different city government departments; learn how to handle citizen requests and complaints; do research; accompany George to work sessions and meetings; and discuss city management functions, skills, and career opportunities.
Jane P. Fitzer	Certified Public Accountant with Watermark, Price and Company, a nationally known accounting firm. Discuss careers in the accounting field and the functions of accountants. Only an Orientation is possible with Jane, but she can refer you to other potential resources to develop additional project activities.
Katy Fitzsimmons	Counselor at the Women's Center for Continuing Education. Learn how to explore career and educational options that are nontraditional, rewarding, and challenging. Learn and use employment counseling techniques and group processes; help recruit volunteers; and research career information and career opportunity materials.

Louis Freeman	Assistant Manager of the business office of the Municipal Utilities District (MUD). Acquire standard office skills (mail sorting and routing, use of business machines, telephone contact), and discuss the organization and purpose of MUD.
Maria Green	Owner and Manager of Maria's Green Thumb, a small plant store. Learn what it takes to own and operate a small business. Acquire and apply accounting, bookkeeping, and small-business management skills.
Jaime Guevara	Manager of the San Pablo Body Shop, a union auto body repair shop. Tour the shop; observe the facilties, equipment, and machinery; and discuss repair techniques and costs. (Orientations only)
Ella Harris	Vice President of the Clay Book Company, as well as a cataloger and bibliographer of antiquarian books. She is an excellent resource for anything about books or the book business. Learn and apply cataloging, bibliographic, and antiquarian skills; discuss your writing skills and get help with them; or use the bookstore as a research resource.
Claude Jarman Laverne Jarman	Owners and Managers of the Jarman Travel Agency. Learn how to file brochures and assist customers in making reservations. Learn ticketing procedures; accompany the RPs to the wholesale operator; and investigate foreign laws affecting Americans traveling abroad.
Ann Lancaster	Executive Director of the Bay Region Marine Exchange. Help monitor ship traffic. Learn how to assist in dispatching of pilots, radiotelephone traffic, record keeping, telephone answering services, and information relay. Research world trade issues and procedures, national economic issues and problems, international economics, and federal control of imports and exports. Investigate management careers.
Cecil Lewis	President of People's Bank. Discuss banking careers, the the role of banks in society, consumerism, and consumer information. Assist with the Consumer Library.
Jim Martinez	An attorney and the owner, editor, and publisher of The Daily Gazette, the official legal newspaper for the county. Assist in the proofreading, folding, and delivery of materials. Talk with a typographer or pressman. Discuss the history of law, the function of a legal newspaper, and careers in law and publishing.
Ken Masuda	Counselor with the Employment Service, a division of the State Department of Human Resources Development. Develop and use individual and group employment counseling techniques. Learn about vocational tests, categories, and matching individuals to careers according to interests and abilities.

Henry Mays	Manager of Jason's Restaurant. Discuss the problems involved in managing a full meal service restaurant and bar, and learn how to prepare yourself for such an occupation. (Orientations only)
Mark McAnnally	See Jose Parra
Louis McGuckin	Public Relations Manager of Union Chemical Company. Accompany Lou on meetings with his free-lance staff. Develop and apply photography, drawing, writing, and other advertising, communications, and public relations skills. Develop job-hunting skills and techniques.
Robert Milne	Owns and rents space in several warehouses in the city. Learn about building management and maintenance. Develop carpentry or other crafts skills. Discuss, develop, and use bookkeeping, business management, and administrative skills and techniques.
Lucas Murphy	Area Sales Representative for Zolex Duplicating Machines, Inc. Discuss urban studies, black history, business communications, economics, or sales. Attend key operator training sessions; accompany Lucas in the field; develop technical knowledge and skills in the Service Department; or work in Personnel or Adminsitration.
Peter Nielsen	Head of the County Department of Weights and Measures. Tour the department and discuss its function and career opportunities there.
Tony Pappas	District Administrator for the State Department of Rehabilitation. He counsels the physically and mentally disabled and helps them adapt to new, productive roles. Discuss the counseling and rehabilitation professions and office procedures. (Orientations only)
Jose Parra Mark McAnnally	Senior partners of Parra, McAnnally, and Associates, Brokers. Accompany a salesperson on a visit to a client; participate in a property appraisal site visit; acquire knowledge and skills in selling insurance and processing claims; or discuss the business and issues related to it (such as no-fault insurance).
Vince Pellinacci	Administrative Aide to Senator Mary Debs. Learn to file, answer phones, type and do other routine office work. Discuss and possibly assist with public relations, research, and "trouble-shooting" tasks.
Bill Pfeiffer	Secretary to the Municipal Utilities District (MUD). Develop and apply public relations and audio-visual skills. Meed MUD lobbyists; attend MUD's legislative committee meetings; or do research.

Mike Polansky	Production Manager at Elephant Press. Develop cost estimation skills; learn how to use a slide rule; and acquire and use poster design, layout, silk screen, and other graphic art skills. Discuss production schedules, paper grades and qualities, and business management techniques.
Roberta Powers	Systems Analyst and Computer Programmer for the State University Science Laboratory. Discuss the development of computer programs; careers in computer programming, science, and technology; and the uses of computers. Learn to write and run a computer program. Tour the facilities.
Dolores Prado	Coordinator of the local Migrant Workers United (MWU). Discuss the history of the migrant workers' unionizing movement, the economic and other issues involved, and this union's relation to other unions. Participate in canvassing and research activities. Learn how to organize the community.
Linda Rodriguez	Secretary at KART Radio. She works closely with the manager and advertising sales staff. Learn to prepare affidavits and invoices, type business letters, use office equipment, and perform receptionist duties. Discuss the operation of a radio station, including copy preparation, program scheduling, and line and tape broadcasting.
Bob Rolf	Manager of the Lakeview Chapter of the American Red Cross. He is an expert in management theory, personnel matters, budget planning, program implementation, and organizational operations. Discuss any of those functions; tour the facilities; develop and apply public relations and graphic art skills; or assist with disaster relief efforts, safety programs, or services to military families.
Larry Romano	Director of the Printers' Institute. Discuss unions, their history, and their impact on the U.S. Attend classes at the Institute; study the administrative and managerial aspects of running the Institute; assist in budget preparation; and learn about the printing industry.
Nancy Townsend	Vice President of the Regional Coordinating Council of the Women's Rehabilitation Training Organization (WRTO), and chairwoman of the American Education Committee. Attend policy-making and planning meetings and study groups. Observe activities involved in planning and coordinating public relations and educational activities. Help research articles on employment, occupations, and vocational education and help write abstracts and educational bulletins. Assist with office work.
Bob Woodruff	Program Director for the county branch of the American Cancer Society. Observe office administration and fund-raising activities. Accompany Bob on field visits and contacts with people in various county communities. Assist volunteers with office activities.

Resource Organizations
(Effective August 1975)

Action for Women	A nonprofit organization concerned with direct action on the social and economic issues of women. Help plan and organize action to assist women; help with office work; develop and use media skills; and gain experience in organizing and working with groups.
City Planning Department	This city department is responsible for urban design, housing, population estimates, and mass transit. Discuss such issues as land use (for recreation, conservation, or development), redevelopment, zoning, and careers in city planning. Tour the Department.
Consumers' Cooperative	The largest retail consumer organization in the area. Learn how and why a consumers' cooperative exists; work with various committees; help with planning the products, the organization, and services of a new co-op store now proposed; and participate in other current projects.
Housing Authority	The Housing Authority provides and maintains housing for low-income families. In the Accounting Department, learn and practice all aspects of accounting and bookkeeping.
Pacific Transportation Company	Explore the complex workings of a railroad. You can begin inside at the clerical offices, then the freight offices, and on to the outside to meet brakemen, switchmen, engineers, and yardmasters. Observe all of the activities of the various departments.
The Public Resource	An organization which operates a computer and makes it available to the public free of charge. Students can help operate the time-share computer system, maintain the "hardware," construct "hardware," develop the program, maintain "software," and do general office work.
Rose's Department Store	A large retail department store. Learn to arrange displays; study the techniques of the security force; learn to wrap gifts; or work with employees in food service, advertising, or one of several sales departments.

Community Resources
(Effective August 1975)

Better Business Bureau	This agency offers a tremendous amount and variety of information and assistance on consumer education and affairs. Volunteer to work in the office; discuss consumer complaint procedures; and learn about consumer information.
City Council	The City Council meets to discuss, debate, and pass legislation related to the management and organization of the city. It holds regular public meetings where issues of economic importance are often discussed. Observe meetings and discussions.
County Board of Supervisors	This body meets every Tuesday to discuss matters of concern to the county. Issues vary widely from meeting to meeting, but many affect the economy of the city and county.
Farmers' Market	Here farmers sell their produce to retail and wholesale grocers. Observe the transactions and question the employees about the economics of the grocery business and farming.
Service Corps of Retired Executives (SCORE)	This organization is sponsored by the Small Business Administration and is composed of retired executives who counsel and hold workshops for small business owners who need assistance. Learn the principles of small-business operations and management, and attend workshops.
Social Security Administration	Here you can obtain information about any aspect of social security. You can also obtain a social security card, necessary if you wish to work.

Bibliography

The following books can be found in the school or public library or at local bookstores. Most should be available in paperback. Some can probably be found in used book stores.

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THE FAR WEST MODEL

EBCE

Experience-Based Career Education

12. Communications and Media

Communications and Media Package

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January 1976

Experience-Based Career Education Program
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1855 Folsom Street, San Francisco, California 94103

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Table of Contents

Page

INTRODUCTION 1

PROJECT IDEAS 3

CAREERS YOU CAN EXPLORE 7

HOW TO PLAN AND COMPLETE A PROJECT 9

PROJECT SEMINARS 13

USING THE PACKAGE GOALS 15

COMMUNICATIONS AND MEDIA PACKAGE GOALS 17

COMMUNICATIONS AND MEDIA PACKAGE GOAL CHECKLIST 21

COURSE EQUIVALENCIES 23

SAMPLE PROJECTS 25

Sample Project 1: News Reporting by the Media 27
Sample Project 2: Career Exploration:
Disc Jockey and Radio Program Director 35
Sample Project 3: The Camera as a Communications Tool 43
Sample Project 4: Three-Dimensional (3-D) Film Making 51
Sample Project 5: Guitar Playing 59
Sample Project 6: Painting 67

RESOURCES

Resources by Career/Discipline Category 75
Resource Persons 77
Resource Organizations 81
Community Resources 83
Bibliography 85

Introduction

We must never assume that we are
fully aware of what we communicate
to someone else.

--Edward T. Hall

It would be hard to think of any time in history when communication was so difficult and yet so important for functioning in the everyday world. Our society is saturated with messages from TV ads to political movements. They come to us in different languages: the language of the body, of space and form, of bureaucracy and science, political euphemism, psychology, and advertising. The mass media (TV, movies, radio, popular music, newspapers) have become powerful forces in shaping our attitudes and opinions in ways unapparent to many of us. Information is transmitted faster and to more people than ever before. We've all heard McClühan's phrase, "the medium is the message," but what does it mean? Is it true? In this new visual age, is the printed word dead, only for "typeheads," as many claim, or is it in fact more crucial to communication than ever?

The arts have infiltrated every aspect of life from road signs, billboards, and musical advertising jingles to the purely expressive and creative. Art as practiced in this culture, both popular and serious, demands more of the viewer and reader than ever before in order to interpret and understand it.

If you are interested in planning a project related to any of these areas, this package should help you. Additional ideas for projects are offered throughout the package. Check the list of resources at the end for people and organizations you might work with. Use the sample projects as models in developing your own Project Plan. The section on how to plan and carry out a project gives detailed instructions to help you get started. Your Learning Coordinator will use the package goals and requirements to determine, with you, the kind and amount of credit your project will earn. Study them before planning your project and you will be ahead of the game.

Through your own project and your participation in the Communications and Media Project Seminar, you should become more aware of how others communicate with you, how to interpret the daily messages you receive, and how to better use today's essential techniques of communication to express yourself. You should also learn more about some of the interesting careers within the expanding field of communications.

Project Ideas

The topics below suggest only a few of the issues and careers around which you can plan a project in the field of communications and media. The sample projects, beginning on page 25, offer additional ideas.

Symbols

How are symbols created? What do they mean? Do they change? How? American culture, like all cultures, is often described by its symbols. What are they? "Watergate," a clenched fist, the word "plastic," a green American flag, the dollar bill, and the terms "blue collar" and "white collar" are symbols. What do they stand for? What makes symbols powerful and how do they lose their power? How do the symbols of one career field or industry, such as medicine or advertising, compare with another? How do symbols and their use differ across subcultures such as the American Indian, Black, and Italian? Have any symbols been adopted by all Americans? These are some of the questions you might research in exploring the use of symbols in our society.

Culture and Communications

What is the relationship between culture and communications? What obstacles to communication exist between cultures or subcultures? For example, in our society the color red stands for danger. It is used as a warning symbol on stop signs, fire engines, stop lights, and flags around construction areas. How else is it used? What is the symbol for danger in other societies? In the Sioux culture, red symbolized warmth and life, and for the Chinese it is a joyous, celebrating color. How do such differences affect our ability to understand one another? How can you try to overcome such obstacles to understanding and communication?

Architecture

How is architecture a form of communication in today's world? How do bank buildings communicate security? Why do certain pancake restaurants resemble A-frame Swiss chalets? Does contemporary design try to communicate permanence, fluidity, or utility? Stone and wood are being replaced by glass, concrete, and steel. How are different materials used to express the values and assumptions of a culture? What is "functional" architecture?

Political Rhetoric

Orwell said, "The language of politics consists largely of euphemism and sheer cloudy vagueness." He called it the art of saying one thing and meaning another. Is this true today? If so, why? How does it work? Does the nature of politics in this country force people entering the "political arena" to adopt the language of politics? Why?

Dance

How is the body used as a form of communication in dance? What do different gestures symbolize in different dances, dance forms, and styles? What is the relationship between the basics of dance -- movement, gesture, and facial expression -- and its trappings -- costume, makeup, scenery, storyline? Are dance skills and techniques easy to transfer from one form of dance, such as classical ballet, to another, like jazz or folk dance? Why or why not?

Language

In America there isn't just one language spoken and written by all people under all circumstances. Scientists increasingly use technical terms, government workers speak bureaucratese, social revolutionaries use jargons of their own, often borrowing from several dialects. Does the so-called generation gap consist mainly of a gap in language? What role does language play in your life? What kind of language do you use? Are you able to identify and analyze the language of others? Do your own words express your own values and attitudes? Could other words better express the things you have to say than those you use most frequently? Is there another form of communication, such as painting, music, dance, or mime, which better expresses your thoughts, feelings, ideas, and values? If so, what is it and why does it work better for you than words?

Popular Music

How has the language, form, and message of popular music changed in the last 30 years? What events or circumstances influenced these changes? How does the beat and volume affect the message? To what extent does popular music shape our attitudes about life (for example, love, social problems)?

Technology

Instant replay, polaroid cameras, voice-prints, electronic surveillance, copy machines, and satellites are just some of the modern innovations being applied to communication. What is the relation between growing technology and communications? What are some possible effects (e.g., are instant replay and multi-track recording changing the way we experience live performances)? How can these inventions benefit society and what are some of the potential dangers of their use?

Careers You Can Explore

There is a wide variety of traditional and emerging careers in the field of communications and media. They vary greatly in work performed and skills and training required, but all are involved in seeking more effective ways of communicating something to someone. Through your project, working with resources in the community, and learning more about the problems and possibilities of this field, you can explore some of these careers and learn more about your own interests and goals in the process.

Written and Verbal Arts

advertising copywriter
advertising manager
author
dramatist
editor
journalist
lecturer
librarian
linguist
poet
public relations manager
publisher
reporter
researcher
script writer
speech writer
translator

Media Arts

book publisher
broadcasting engineer
camera operator
cartoonist
disc jockey
film director
film maker
film producer
graphic artist
newscaster
photographer
play producer
printer
record publisher
sound operator
TV/radio announcer
TV/radio host or hostess

Crafts, Fine Arts, and Performing Arts

actress or actor
architect
art critic
art curator
art exhibit director
art historian
art teacher
artist
carpenter
commercial artist
composer
conductor
dancer
disc jockey
jeweler
mime
musician
photographer
play director
potter
sculptor
singer
weaver

How to Plan and Complete a Project

Your project might begin with a desire to explore a career, to dig into a social, scientific, or political problem, to work with a particular resource, or to earn credits required to graduate or to pursue your educational and career goals. Wherever you start, you will need shortly to decide what you will be doing, with whom, and what you plan to learn about or learn how to do through your project. You are essentially planning your own course of study, just as a teacher must plan a class. Your plans must be in writing so that you, your Learning Coordinator, and the resources with whom you are working all know what you hope to accomplish. Your plans will grow and change as you work on the project; make sure these changes are recorded and approved by your Learning Coordinator (LC). At a time agreed upon by you and your LC -- about one month before you plan to complete your project -- you will be asked to develop a final Project Plan which then becomes a learning contract you are promising to keep in return for the credit you seek. Below are some pointers for how to plan and complete a project. They offer a guide only. Where you will need to start and how you will proceed depends on how clear an idea you have of what you want to do. Beginning from scratch, you should do the following.

Finding a Topic

1. Read through the project ideas, sample projects, and lists of resources in the packages to find out what you can do and learn with the people and organizations who are ready to work with you.
2. Meet with your LC to discuss your interests:
   - what you want to explore -- a career, a subject, an issue, or a combination of these -- and the kinds of things you would like to learn;
   - which package you should use, who is coordinating it, and when the project seminar meets; and
   - which resources you want to or ought to contact.

746

3. Attend some project seminar meetings to:

- get ideas, suggestions, and assistance in planning your project from the Package Coordinator and the other students, and

- broaden your knowledge of careers, issues, problems, ideas, and techniques related to the package.

4. Choose some resources that interest you, plan Orientation visits using a Project Sketch, visit the resources, discuss your ideas with them, and explore possible project topics. The purpose of your Orientations should be to help you find out what you want to learn about or learn how to do, where, and with whom. NOTE: You must go beyond these brief Orientations to really plan and complete a worthwhile project. You may wish to broaden your knowledge of an issue or career by visiting several resources and working with one or two at the Exploration level. Or you may wish to dig into a subject or career and develop some expert knowledge or skills through working with one resource for an extended period of time.

Developing a Plan

5. When you have settled on an area of interest, start planning your project on a Student Project Plan. See the sample projects in this package for models. If you have trouble understanding what your project should look like on paper, see your LC and the Package Coordinator. After three or four Orientation visits to resources, you should be able to do the following (and complete the appropriate sections of the Project Plan):

- Describe the theme of your project.

- Pose significant questions you will investigate.

- List the resources you have used and plan to use in completing your project. (If no resources are available in your area of interest, you may have to recruit some yourself. Ask your LC and the Resource Analyst for help.)

- Identify related reading or other research materials you will use and how you will use them.

- Identify special requirements or prerequisites.

- Estimate how long your project will take.

6. After two or three more visits with your resources, you should be able to:

   - State what you want to learn about or learn how to do through your project (your goals) and how you will demonstrate you have learned it (your indicators). Pace your work by making some indicators due earlier than others. Be sure that your goals and indicators include at least one product. REMEMBER: You can change, refine, add to, or delete goals and indicators until the cutoff date decided upon by you and your LC, after which your Project Plan becomes a learning contract.

   - If you want someone in addition to your LC to evaluate your work (such as a Resource Person or the Package Coordinator), ask that person if he or she is willing to do it. Only those who have agreed to evaluate your products and/or performance should be listed as evaluators on the last page(s) of your Student Project Plan.

   - Be sure that your project will be worth the amount and type of credit you wish to receive. (With your LC, compare your project goals and indicators with the package goals using the goal checklist.) If you cannot meet the package requirements for the amount and type of credit you want with one project, do two.

   - Be sure to discuss your project topic with your resources and work with them to firm up your Plan.

Completing Your Project

7. Work with your resources, do your research and related reading, and have weekly discussions with your LC, keeping him or her informed of your interests, goals, and activities.

8. Whenever possible, relate work you are doing in workshops or other supplementary activities to your projects. (For example, bring early drafts of project reports to your English instructor or tutor to have them reviewed and critiqued.)

9. Attend project seminar meetings to give progress reports, share your experiences, get help in solving problems you encounter, and learn how other students' projects and yours are related to a common subject/career area.

10. Wrap up your project and submit it for credit by:

    - completing products and performance tests which demonstrate what you have learned. (Products can be written reports or essays, photographic essays or drawings, audio- or videotape recordings, or other media. Performance tests can be oral reports, presentations, or actual tasks at a resource site.)

- having your products and/or performance reviewed and evaluated by the persons designated on your Project Plan. (Be sure your evaluators record their assessments on the last page(s) of your Project Plan. If you agree with the evaluation, add your initials. If you disagree, state your reasons in the "Comments" column.)

- completing a Project Summary Report evaluating your own work and requesting the amount and type of credit you think you have earned through your project.

11. Turn in your Student Project Plan, product(s), and Project Summary Report to your LC for review, evaluation, and assignment of credit.

Project Seminars

One of the ways to make learning come alive is to talk about it -- to share what turns you on most, get help with problems, see if your insights make sense to others, and maybe even argue some about ideas or solutions. Project seminars are a series of meetings where students working in related subject areas can come together and rap about questions and issues common to the field they're all exploring. The meetings can be useful in a number of ways.

- First, they can help you with ideas for projects. If you don't already have one, listening to other students kick around their interests may trigger an idea of your own, some direction you hadn't thought of. If you do have a project in mind, these discussions can help you clarify and focus it, plus give you some good leads for resources to visit.
- You can't be sure what you know or how well you know it until you try to explain it to someone else. Testing your findings on others, bouncing ideas or conclusions off them, and describing particular experiences can help you get a firmer grasp on what you're learning. You may find you know more than you thought or see that some of your answers need rethinking.
- Through your own project, you will be able to explore only some of the interesting ideas, techniques, issues, and careers related to this package. Your fellow students will have the same problem. But together, in the project seminars, you can learn from each other's research and experiences, thus expanding your knowledge of the field in general.
- In the same way, talking with guest speakers, viewing films, or visiting relevant community resources as a group will broaden your understanding of the discipline and related careers.
- Project seminars provide a resource you can tap to solve problems encountered in carrying out your project. If you're having trouble working with a particular Resource Person, finding sources of information about your topic, or deciding what kind of product will best communicate your findings, other students and the Package Coordinator can help you analyze alternatives and find a solution.
- Finally, you may discover that some students share your interests and concerns and would like to combine talents and energies into a group project. Working jointly you can sometimes tackle bigger problems and cover more ground.

Using the Package Goals

The goals on the following pages outline some important kinds of learning which should be included in your project. They are meant to stretch your imagination and to help you develop a worthwhile Plan, not to confine your thinking. Minimum requirements for a project are given, so that you and your Learning Coordinator have standards for judging whether your project is roughly equal in amount of work to a class in the subject. These goals and requirements are broadly stated to allow you great freedom in deciding exactly what you will learn, with whom, how you will demonstrate your new knowledge or skills, and who will evaluate your work.

When you have drafted your Project Plan, compare it with the package goals and requirements. You can use the goal checklist to make certain your Plan is complete. If you have trouble understanding the goals or how to use them, ask your Learning Coordinator for help.

Communications and Media Package Goals

GOAL 1: BASIC SKILLS (Required)

You should practice and improve your basic skills by using at least one method of acquiring and one method of communicating information in the course of your project.

ACQUIRING INFORMATION (choose one)

- Reading: You should be able to read critically and comprehend newspaper and magazine articles, books, or other materials pertinent to your project.
- Listening: You should be able to listen effectively and critically to speeches, lectures, radio and television broadcasts, and other commentaries related to your project.
- Observing: You should be able to acquire information from and interpret works of art, live performances, films, or television programs pertinent to your project.

COMMUNICATING INFORMATION (choose one)

- Writing: You should be able to express in writing your ideas, thoughts, and feelings so that they achieve their purposes.
- Speaking: You should be able to communicate orally your own or others' ideas, thoughts, and feelings effectively and appropriately.
- Innovating: You should be able to use a form of the media, the fine, or the performing arts as a means of creative expression.

GOAL 2: PROBLEM-SOLVING (Required)

You should expand your problem-solving skills by thoroughly investigating a significant question, problem or issue in the field of communications and media. To do so, you should:

- Define the problem or issue. (Why is it important? Who does it affect? What are some of its causes?)
- Identify sources of information to learn more about the subject (people, books, magazine articles, government agencies).
- Use appropriate methods for gathering data (interviewing, observing and recording, reading, survey research, experimenting with different techniques or solutions).
- Organize the information obtained. (Tally, summarize, compare, analyze, or synthesize your findings.)
- Evaluate proposed solutions. (Which solutions are most desirable from your viewpoint? Why? Which are most feasible in terms of time, cost, human nature, or other factors? Why?)

GOAL 3: CAREER DEVELOPMENT (Choose a or b)

a. You should learn enough about two careers in the field of communications and media to evaluate them in terms of your own interests, values, goals, and abilities. Your research should include the following:

   - The roles and functions of an employee.
   - The relation of the career to other careers.
   - The qualifications and routes for entry.
   - The working conditions, rewards, and benefits of the career.
   - The current and projected demand in the field.
   - Union or professional affiliations that are desirable or necessary.
   - The effect of the job on one's lifestyle.
   - Your own evaluation of the career.

b. You should develop career entrance skills in two of the following areas:

   - Obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements.
   - Preparing letters of inquiry, applications and resumés for employment or school entry.
   - Preparing for and performing effectively in employment or other admissions interviews.
   - Acquiring job-entry skills and experience in a chosen career field.

Communications and Media Package Goals (continued)

Through a communications and media project, you can choose to increase your knowledge of concepts and principles in the field (Goal 4), your ability to use specific techniques (Goal 5), or you can learn both principles and techniques by selecting some elements from each goal for a total of five.

GOAL 4: COMMUNICATIONS AND MEDIA INQUIRY (Choose at least five)

Artists, writers, musicians, and others who spend most of their lives communicating information, ideas, and feelings are aware of the differences between appearance and reality, what they try to communicate, and what other people understand of their messages. Your research into some aspect of communications should result in a better understanding of five of the following (or five comparable) concepts, principles, and relationships as they pertain to your area of investigation.

- What are some of the purposes of various kinds of communication? How can you tell the purpose of a message? How does the purpose of a communication affect its content, form, or tone?
- What is the function of form and style in communication? How do they determine the effect of a letter, article, speech, dance, or dramatic performance? How are different architectural materials and spatial arrangements used to communicate?
- How do you determine the message, theme, or main idea of a communication? How does content affect choice of the medium and style of communication?
- Paintings, plays, songs, essays, and films are all methods of communicating. What are the essential characteristics and uses of each medium? How does the choice of a medium enhance or limit your ability to communicate a particular message?
- Messages are directed toward a particular audience. How does the audience influence what and how you communicate?
- Often, what you communicate is expressed through someone else -- a messenger such as an actor (if you are a scriptwriter), a musician (if you are a composer), or an announcer. What influence, if any, does the messenger have on what you are trying to communicate?
- A cliché is any phrase or image, whether pictorial, musical, or verbal, that has been used often enough to lose its freshness. When are clichés effective? When do they hinder communication? Why?
- Metaphors and analogies are methods of comparison. When are they used? How? Where?
- A symbol is something that stands for or represents another thing. What are some common symbols? What do they mean to you? To others? How are symbols used? How do symbols aid or prevent effective communication?
- What is message distortion? What are some common reasons that messages get distorted? How does distortion occur in the sending of messages? In the receiving of messages?
- What does it mean to be subjective? Is something produced by an individual ever anything but subjective? What is an objective viewpoint?
- What are the effects of culture and communication on each other? How do methods of communication differ between cultures? How do differing values and beliefs affect communications between cultures? What effect do concepts such as time and space have on how people express themselves and what they understand?
- What is the impact of technology on communications? How are inventions such as radio, television, film, and communications satellites changing what and how people communicate with each other?
- What influence do the media have on public attitudes? How do television, radio, magazines, and newspapers shape your thoughts, values, ideas, and lifestyle?
- What effect does group identity have on how we express ourselves and our ability to communicate with one another? Do the young express themselves differently from the middle-aged? From the old? What about Northerners? Easterners? Southerners? Do businessmen, artists, farmers, and politicians speak the same language?
- Other (specify).

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Communications and Media Package Goals (continued)

GOAL 5: COMMUNICATIONS AND MEDIA TECHNIQUES (Choose at least five)

If you want to focus your project on acquiring some of the skills and techniques used in communications and media, you will need to work closely with your resources and Learning Coordinator to identify at least five specific skills you will work on and demonstrate through your project. The list below provides some examples of skills and techniques. You may choose five of these to work on or identify five comparable skills. You may focus on one of these broad areas: written and verbal arts, media arts, or fine and performing arts.

- Select materials, media, and styles appropriate to the purpose, content, and audience of different communications.
- Set up and use basic tools and equipment of the career field.
- Identify and use basic processes, such as the steps in developing film, in their proper sequence.
- Organize and present material for a specific purpose or audience.
- Use different materials or styles to convey the same idea or emotion.
- Use different techniques or idioms to convey different ideas or emotions.
- Develop expertise in using a specific process, instrument, or technique
- Proofread written materials using proper symbols.
- Interpret and describe communications in terms of their purpose, message, style, imagery, and effect.
- Critically analyze communications in terms of how their separate parts or performances contribute to the whole.
- Stage, direct, or give a live, audio, or film performance.
- Accurately illustrate ideas, processes, or structural forms through drafting, graphic design, or photography.
- Other (specify).

Obviously, it could take years to become expert in some of the above. If you wish to specialize and earn credit in a particular skill area, such as drafting, you will be expected to meet the performance standards for that subject generally employed in your school or district or demonstrate entry-level job skills.

Experience-Based Career Education	COMMUNICATIONS AND MEDIA PACKAGE GOAL CHECKLIST
STUDENT'S NAME	DATE
PROJECT TITLE	

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* ☐ reading ☐ listening ☐ observing *Communicating Information* ☐ writing ☐ speaking ☐ innovating
2. PROBLEM-SOLVING	*All elements*	☐ define the problem or issue ☐ identify sources of information ☐ use appropriate methods for gathering data ☐ organize the information obtained ☐ evaluate proposed solutions
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	☐ a. investigate two careers in terms of: ☐ roles and function of employee ☐ relation of career to other careers ☐ qualifications for entry ☐ working conditions, rewards, benefits ☐ current and projected demand ☐ union or professional affiliations ☐ effects of job on lifestyle ☐ your own evaluation of the career ☐ b. develop career entrance skills in two of the following areas: ☐ obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements ☐ preparing letters of inquiry, applications and resumés ☐ preparing for and performing in interviews ☐ acquiring job-entry skills and career-related experience

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COMMUNICATIONS AND MEDIA PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from either Goal 4 or Goal 5, or you can combine elements from each as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. COMMUNICATIONS AND MEDIA INQUIRY	*At least five elements or five comparable elements*	☐ purposes ☐ form and style ☐ message ☐ medium ☐ audience ☐ messenger ☐ cliché ☐ metaphors and analogies ☐ symbol ☐ distortion ☐ subjective/objective ☐ culture and communication ☐ technology ☐ media ☐ group identity and communication ☐ other (specify) ________________
5. COMMUNICATIONS AND MEDIA TECHNIQUES	*At least five elements or five comparable elements*	☐ select materials, media and styles appropriate for different communications ☐ set up and use basic tools and equipment ☐ identify and use basic processes in their proper sequence ☐ organize and present material for a specific purpose or audience ☐ use different materials or styles to convey the same idea or emotion ☐ use different techniques or idioms to convey different ideas or emotions ☐ develop expertise in using a specific process, instrument, or technique ☐ proofread written materials using proper symbols ☐ interpret and describe communications ☐ critically analyze communications ☐ direct or give a performance ☐ accurately illustrate ideas, processes, or structural forms ☐ other (specify) ________________

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Course Equivalencies

One of your concerns in developing a project should be earning credits you need for graduation. Depending on the focus of your project within the broad field of communications and media, you may earn credit in any of these subject areas:

Art

- Art
- Ceramics
- Commercial Art
- Costume Design
- Crafts
- Graphic Arts
- Jewelry
- Photography
- Sculpture
- Silk Screen
- Stagecraft

English

- Creative Writing
- Drama
- English
- Journalism
- Literature
- Public Speaking

Music

- Harmony
- Music Listening
- Orchestra
- Piano, Guitar, or Other Musical Instrument
- Stage Band
- Vocal Ensemble
- Voice

Your Learning Coordinator will help you determine how much and what kind of credit you will earn when you complete your project. Your LC will also help you, if necessary, develop or expand your Project Plan to earn the type of credit you desire.

Sample Projects

What does a good Project Plan look like? The samples on the following pages show projects, each worth 5 or 10 credits, focusing on different topics, issues, and careers. Browse through them for ideas. Look at them when planning your own project to see how to write goals and indicators. Use them to trigger ideas of your own, and as concrete examples of the kinds of things you can do with the resources available. By changing it to suit your interests, you can even take one of the sample projects and make it your own.

Sample Project 1

News Reporting by the Media

The focus of this project is to learn about different kinds of media by looking at the way they treat the same news item.

- Choose a significant news story, some problem or event important enough to be covered by several newspapers over a period of time (such as the energy crisis, the Patricia Hearst case, or an election campaign). Follow the issue in the newspaper, on radio and television.
- Visit at least two newspapers. Ask to observe the news room or city desk in action. Besides the obvious factor of size, what other things (such as audience) influence what is considered newsworthy and how it is reported?
- Visit the news bureaus of a television and radio station. Talk to a reporter as well as a newscaster and compare their roles. Explore how the differences between media affect a story. (For example, what are the advantages and limitations of reporting through videotape and a front-page column?)
- Contrast news magazine articles with those in the daily papers. Then examine the use of photographs and television film coverage by both media.

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect your interests and available resources, or write new ones to guide and document your activities.

Experience-Based Career Education

PROJECT SKETCH

[illegible] your resource orientations. Obtain your learning coordinator's [illegible] visiting a resource.

STUDENT Jane Dalton LC Paul Smith DATE 9/29/75

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

news reporting

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. How is a news event reported?
2. Does a reporter's personality affect the news?
3. Does the fact that news shows compete for ratings affect how they present the news?
4. What does it take to be a good reporter? What does a reporter really do during a workday?
5. Why do news programs on TV have teams?
6. What are some of the attitudes different newspapers, news magazines, and radio and TV news stations have about news reporting? What are bias, slanting, and distortion?

III. WHAT RESOURCES WILL YOU USE?

[✓ RP]/RO/CR *(Circle one)* Jim Collier Phone 849-1040

Address Daily Barb, 2042 Draper Avenue

RP/RO/[✓ CR] *(Circle one)* Bay Sentinel Phone 861-9600

Address 1070 Lookout Boulevard

[✓ RP]/RO/CR *(Circle one)* Helen Graves, News Director Phone 621-0867

Address KJOV News Bureau, 2816 East Street

OTHER RESOURCES *(Give name of person or title and author of books, articles, etc.)*

Tribune, Chronicle, Time magazine, Newsweek magazine, news on radio and television broadcasts

I HAVE READ THE RESOURCE GUIDE(S) [X] Yes [ ] No (If not, give reasons) ______

APPROVED BY LC Paul Smith DATE 9/29/75

LC FOLLOW-UP

[X] The student has decided to do a project in this interest area.

[ ] The student has decided not to pursue this interest further because: ______

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

Distribution: Original (White) - LC; Yellow - Student; Pink - Resource Analyst

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Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT Jane Dalton PROJECT NO. 1 PACKAGE Communications and Media

LC APPROVAL Paul Smith DATE 10/10/75 DATE PROJECT STARTED 9/29/75

TECHNICAL ADVISOR(S) (If any) ____________

1. PROJECT DESCRIPTION

A. Title News Reporting by the Media

PLANNED CREDITS		EBCE Credits
Subject Area(s)	1. Journalism	5
	2. English	5
	3.	

B. Theme (Please give a brief description of your project) I will analyze how different media and different reporters present news events to the public. I will look at newspaper, television, radio, and magazine reporting and try to identify the roles of the reporter, the newscaster, and the magazine, radio station, and newspaper editorial staff in reporting an event. I also plan to learn some of the techniques of news reporting and improve my writing skills.

C. Questions to be Investigated:
What is the reporter's most important concern in reporting an event? What kinds of pressures and restrictions do journalists have to work under? Do the methods and styles of radio and television newscasters differ much from newspaper reporters? How and why? Polls show that the public considers TV news more reliable than any other kind. Why? Is it possible for a reporter to be "objective?" Is it a "good" thing to be? Why? How do still photos, videotape, and motion pictures affect the reporting of a news story? If live coverage of events is more dramatic, why do people read newspapers? What do I think is the right approach to news reporting? Who decides what "news" is? When and why does coverage of an event cease? What is the probable effect(s) of the reporting of an event, and the way it has been reported, on the public? On the event itself? Why?

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Mid-Term Review	Initials	Date	End-of-Term Review	Initials	Date

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STUDENT PROJECT PLAN | Page 2 of 4

II. IDENTIFICATION OF RPs, ROs, & CRs

A. Completed Visits (Identify resources already visited for Orientation)

Resource Name	Address	Phone	RP	RO	CR	Hours Spent
Jim Collier	Daily Barb 2042 Draper Avenue	849-1040	X			5
Bay Sentinel	1070 Lookout Boulevard	661-9600			X	3
Helen Graves	KJOV News Bureau 2816 East Street	621-0867	X			2

B. Planned Visits (Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)

Resource Name	Address	Phone	Acty *Level			RP	RO	CR	Est. Hours
			O	E	I				
Jim Collier	Daily Barb 2042 Draper Avenue	849-1040		X		X			25
Hunter Wilson	Earth News Video-Radio 54 Vicksburg Street	826-3986	X			X			8
Helen Graves	KJOV News Bureau 2816 East Street	621-0867		X		X			20
Sign Newspaper Group	630 20th Street	376-1120		X			X		25

* O = Orientation; E = Exploration; I = Investigation

C. Related Reading/Research (Give Titles)

Tribune, Chronicle

listen to radio and television news stations (KOOL, KER, KJOV, KLIP, KTVJ)

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS

(See Resource Guides. Some sites require special insurance, health certificates, etc.)

A. Prequisites ______

B. Materials or Equipment camera and tape recorder

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits 88 Hrs. Product Production 30 Hrs.

B. Reading 20 Hrs. Other (specify) ______ Hrs.

TOTAL HOURS 138

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT 12/15/75

PLANNED PROJECT COMPLETION DATE 1/15/76

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page [illegible] of 4

Student *Jane Dalton* LC *Paul Smith* Project Title *News Reporting by the Media*

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 1: Understand pressures and restrictions on a reporter or newscaster by his or her magazine, newspaper, or station.					
a. Interpret, in a journal, the effects of the following on the reporting of an event: the audience at which the newspaper or station aims its material; its editorial policy; and its major advertisers.	*12/20*	*Paul Smith*			
GOAL 2: Distinguish how different reporters and different media report the news.					
a. Compare, in the journal, coverage of a political event by two newspapers, a radio station, and a TV station. Focus the comparison on the facts included in each coverage (differences and similarities) and how they are interpreted.	*12/20*	*Paul Smith*			
GOAL 3: Know the advantages, disadvantages, and requirements of being a newspaper reporter and a newscaster and how these careers relate to my interests and abilities.					
a. Complete Career Orientation Guides on a newspaper reporter and a newscaster. Discuss my evaluation of these two careers in terms of my goals, values, interests, and abilities.	*1/5*	*Paul Smith*			
(continued on next page)					

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 4 of 4

Student Jane Dalton LC Paul Smith Project Title News Reporting by the Media

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 4: Analyze the extent to which an event is affected by its news coverage.					
a. Give a brief talk about and lead a project seminar analyzing the possible ways media coverage affects campaign strategies during an election.	1/10	Package Coordinator			
GOAL 5: Apply some of the techniques of newspaper reporting.					
a. Describe in a 500-word editorial a reporter's sources of information about events such as political campaigns; the problems newspeople face in acquiring accurate, up-to-date information; and propose some possible solutions to those problems. Show improvement between the first and final drafts.	first draft 1/5 final draft 1/15	Jim Collier			
b. Cover and write a news story about a city council meeting acceptable for printing.	first draft 1/5 final draft 1/15	Jim Collier			
GOAL 6: Improve my ability to communicate in writing.					
a. The second drafts of my editorial and news story will demonstrate improved sentence structure, organization, paragraphing, and clarity of presentation.	1/15	Skills Specialist			

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Experience-Based Career Education	COMMUNICATIONS AND MEDIA PACKAGE GOAL CHECKLIST

STUDENT'S NAME *Jane Dalton* DATE 10/10/75

PROJECT TITLE *News Reporting by the Media*

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* [X] reading [X] listening [X] observing *Communicating Information* [X] writing [X] speaking [ ] innovating
2. PROBLEM-SOLVING	*All elements*	[X] define the problem or issue [X] identify sources of information [X] use appropriate methods for gathering data [X] organize the information obtained [X] evaluate proposed solutions
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	[X] a. investigate two careers in terms of: [X] roles and function of employee [X] relation of career to other careers [X] qualifications for entry [X] working conditions, rewards, benefits [X] current and projected demand [X] union or professional affiliations [X] effects of job on lifestyle [X] your own evaluation of the career [ ] b. develop career entrance skills in two of the following areas: [ ] obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements [ ] preparing letters of inquiry, applications and resumés [ ] preparing for and performing in interviews [ ] acquiring job-entry skills and career-related experience

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COMMUNICATIONS AND MEDIA PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from either Goal 4 or Goal 5, or you can combine elements from each as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. COMMUNICATIONS AND MEDIA INQUIRY	*At least five elements or five comparable elements*	☐ purposes ☐ form and style ☒ message ☐ medium ☒ audience ☒ messenger ☐ cliché ☐ metaphors and analogies ☐ symbol ☒ distortion ☒ subjective/objective ☐ culture and communication ☐ technology ☒ media ☐ group identity and communication ☐ other (specify) ______
5. COMMUNICATIONS AND MEDIA TECHNIQUES	*At least five elements or five comparable elements*	☐ select materials, media and styles appropriate for different communications ☐ set up and use basic tools and equipment ☐ identify and use basic processes in their proper sequence ☒ organize and present material for a specific purpose or audience ☐ use different materials or styles to convey the same idea or emotion ☒ use different techniques or idioms to convey different ideas or emotions ☐ develop expertise in using a specific process, instrument, or technique ☐ proofread written materials using proper symbols ☒ interpret and describe communications ☒ critically analyze communications ☐ direct or give a performance ☐ accurately illustrate ideas, processes, or structural forms ☒ other (specify) reporting skills: gather information for a news story

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Sample Project 2

Career Exploration: Disc Jockey and Radio Program Director

Are you interested in radio broadcasting? A good way to clarify your interest in the field is to take a close look at a couple of careers in it. In exploring the different facets of broadcasting you may discover you prefer a behind-the-scenes role to going on the air. Or a general desire to express yourself might better be pursued in some other field such as acting or writing. The careers of disc jockey and program director, for example, are very different, but have some things in common. This project can help you explore these radio careers and clarify your interests in the field.

- Who decides what you will hear when you turn on your radio? Arrange an Orientation and an Exploration at a local radio station. Find out what the program director does and what factors influence the decisions he or she makes.

- Work with a disc jockey at the station as well as the program director. How much control does a radio performer have over the material he or she uses on his or her program? What is the relationship between a performer's personality and the "personality" or style of the show? How do a program director's decisions affect a disc jockey's program? What skills, if any, do the two careers have in common? What do you like most about each job? What do you like least? Which would you prefer? Why?

- Listen regularly to a couple of disc jockeys on two or three different stations. Do the disc jockeys for one station all sound the same? Do disc jockeys for different stations sound different? In what way? Why? Does each station present a particular image to its audience? If so, how and why do the stations do this? Who is responsible for setting the image?

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect your interests and available resources, or write new ones to guide and document your activities.

Experience-Based Career Education

PROJECT SKETCH

[illegible] orientations. [illegible] your Learning Coordinator's [illegible] available resources.

STUDENT Nancy Brooks LC Mary Owens DATE 10/3/75

I. AREA OF INTEREST (*List the specific career, subject, or issue area you want to explore as a possible project*)

I want to find out what a disc jockey does.

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. What does a disc jockey do?
2. Who decides what he can do on his show?
3. What qualifications and skills does he need?
4. What are some other radio broadcasting careers?
5.
6.
7.
8.

III. WHAT RESOURCES WILL YOU USE?

[✓ RP]/RO/CR (*Circle one*) Bob Jefferson Phone 262-3000, Ext. 50
Address KOOL Radio, 200 Bayview Avenue

[✓ RP]/RO/CR (*Circle one*) Dorothy Wing Phone 262-3000, Ext. 58
Address KOOL Radio, 200 Bayview Avenue

RP/RO/CR (*Circle one*) ______ Phone ______
Address ______

OTHER RESOURCES (*Give name of person or title and author of books, articles, etc.*)

KJOV, KER, KLIP

I HAVE READ THE RESOURCE GUIDE(S) [x]Yes [ ]No (If not, give reasons) ______

APPROVED BY LC Mary Owens DATE 10-5-76

LC FOLLOW-UP	[X] The student has decided to do a project in this interest area. [ ] The student has decided not to pursue this interest further because:

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

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Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT Nancy Brooks PROJECT NO. 2 PACKAGE Communications and Media

LC APPROVAL Mary Owens DATE 10-15-75 DATE PROJECT STARTED 10 5 75

TECHNICAL ADVISOR(S) *(If any)* Bob Jefferson

I. PROJECT DESCRIPTION

A. *Title* Career Exploration: Disc Jockey and Radio Program Director

PLANNED CREDITS		EBCE Credits
Subject Area(s) 1.	English	3
2.	Career Exploration	2
3.		

B. *Theme* *(Please give a brief description of your project)* The theme of this project is a career exploration of the field of radio broadcasting. I will explore two careers (disc jockey and program coordinator) in depth. I want to look into the relationship between the program director, the disc jockey, the program and the station. I also want to learn how I feel about the careers: which I prefer, where my talents and skills lie, and the advantages and disadvantages of each for me.

C. *Questions to be Investigated:*
How does a disc jockey use language? What is a disc jockey's relationship to the station? Does a disc jockey select his own material? If so, on what basis? How closely does a program director have to conform to the demands of the station? Who tells the program director what she can or cannot broadcast? How creative is a career in broadcasting? What skills and knowledge does a program director need? What skills and knowledge must a disc jockey have? Do these two careers have any skills in common and if so, what are they?

FOR LEARNING COORDINATOR USE ONLY

Mid-Term Review	*Initials*	*Date*	*End-of-Term Review*	*Initials*	*Date*

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STUDENT PROJECT PLAN

Page 2 of 4

II. IDENTIFICATION OF RPs, ROs, & CRs

A. Completed Visits (Identify resources already visited for Orientation)

Resource Name	Address	Phone	RP	RO	CR	Hours Spent
Bob Jefferson	KOOL Radio 200 Bayview Avenue	262-3000	X			6
Dorothy Wing	KOOL Radio 200 Bayview Avenue	262-3000	X			2

B. Planned Visits (Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)

Resource Name	Address	Phone	Acty *Level			RP	RO	CR	Est. Hours
			O	E	I				
Bob Jefferson	KOOL Radio 200 Bayview Avenue	262-3000		X		X			20
Dorothy Wing	KOOL Radio 200 Bayview Avenue	262-3000		X		X			21

* O = Orientation; E = Exploration; I = Investigation

C. Related Reading/Research (Give Titles)

Listen to KOOL, KER, KJOY, and KLIP radio

How To Become A Radio Disc Jockey, Hal Fisher

Big Broadcast: 1920 - 1950, Frank Buxton and Tom Owen

Radio Programming In Action, Sherril Taylor

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS (See Resource Guides. Some sites require special insurance, health certificates, etc.)

A. Prequisites

B. Materials or Equipment tape recorder

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits 49 Hrs. Product Production 20 Hrs.

B. Reading 15 Hrs. Other (specify) Hrs.

TOTAL HOURS 84

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT 12/21/75

PLANNED PROJECT COMPLETION DATE 1/25/76

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 3 of 4

Student Nancy Brooks **LC** Mary Owens **Project Title** Career Exploration: Disc Jockey and Radio Program Director

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 1: Understand the relationship between the image of a radio station and its programs and staff.					
a. Analyze, in an essay, the role of the program director and the disc jockey in determining the style and content of programs broadcast.	1/25	Mary Owens			
b. Identify in this essay problems both face when selecting program content and some possible alternative solutions.	1/25	Mary Owens			
GOAL 2: Understand what the two careers have in common and how they relate to me.					
a. Compare the careers of disc jockey and radio program director on Career Orientation Guides.	1/25	Mary Owens			
b. Describe, in the project seminar, skills and knowledge needed in the two careers, their common characteristics, and how the careers relate to my goals, values, and interests.	1/17	Package Coordinator			
GOAL 3: Apply some of the skills used by disc jockeys and program directors.					
a. Prepare a tape, suitable for broadcast, of news, music and, advertisements one-half hour in length. The narrative material presented on the tape will be selected, written, and read by me.	1/20	Bob Jefferson			

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 4 of 4

Student Nancy Brooks LC Mary Owens Project Title Career Exploration: Disc Jockey and Radio Program Director

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
6. Select and develop a schedule for a day's programming and give a rationale for the programs selected and how they are scheduled.	1/20	Dorothy Wing			

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FWL-EB/E [illegible]

Experience-Based Career Education	COMMUNICATIONS AND MEDIA PACKAGE GOAL CHECKLIST

STUDENT'S NAME *Nancy Brooks* DATE *10/15/75*

PROJECT TITLE *Career Exploration: Disc Jockey and Radio Program Director*

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* ☒ reading ☒ listening ☐ observing *Communicating Information* ☒ writing ☒ speaking ☒ innovating
2. PROBLEM-SOLVING	*All elements*	☒ define the problem or issue ☒ identify sources of information ☒ use appropriate methods for gathering data ☒ organize the information obtained ☒ evaluate proposed solutions
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	☒ a. investigate two careers in terms of: ☒ roles and function of employee ☒ relation of career to other careers ☒ qualifications for entry ☒ working conditions, rewards, benefits ☒ current and projected demand ☒ union or professional affiliations ☒ effects of job on lifestyle ☒ your own evaluation of the career ☐ b. develop career entrance skills in two of the following areas: ☐ obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements ☐ preparing letters of inquiry, applications and resumés ☐ preparing for and performing in interviews ☒ acquiring job-entry skills and career-related experience

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COMMUNICATIONS AND MEDIA PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from either Goal 4 or Goal 5, or you can combine elements from each as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. COMMUNICATIONS AND MEDIA INQUIRY	*At least five elements or five comparable elements*	☒ purposes ☐ form and style ☐ message ☐ medium ☒ audience ☒ messenger ☐ cliché ☐ metaphors and analogies ☐ symbol ☐ distortion ☐ subjective/objective ☐ culture and communication ☐ technology ☐ media ☐ group identity and communication ☒ other (specify) *the relation of programming to the communication of an image*
5. COMMUNICATIONS AND MEDIA TECHNIQUES	*At least five elements or five comparable elements*	☒ select materials, media and styles appropriate for different communications ☒ set up and use basic tools and equipment ☐ identify and use basic processes in their proper sequence ☒ organize and present material for a specific purpose or audience ☐ use different materials or styles to convey the same idea or emotion ☐ use different techniques or idioms to convey different ideas or emotions ☐ develop expertise in using a specific process, instrument, or technique ☐ proofread written materials using proper symbols ☐ interpret and describe communications ☐ critically analyze communications ☐ direct or give a performance ☐ accurately illustrate ideas, processes, or structural forms ☐ other (specify) ____________

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Sample Project 3

The Camera as a Communications Tool

The purpose of this project is to explore cameras and photography as a means of communication. Not only will it expose you to different types of photography, but with it you can develop specific photographic skills and techniques. It will help you focus on the type of photography most suited to your own interests and abilities as well. You can apply photographic skills by using them to report on your activities in other projects.

- Talk with a fine arts photographer. Discuss the kinds of photographs this person takes. What purpose, if any, does he or she have in mind when taking pictures? What techniques and skills are used? Try to find out what relationship art has to craft for this photographer.
- Work with another type of photographer, a photojournalist for example. Explore the relationship between fine arts photography and photojournalism. What is the photojournalist trying to achieve with his camera that the fine arts photographer (or some other type of photographer) is not? What restrictions, if any, does a photojournalist work under?
- Identify skills and techniques you think you should acquire and, with your RPs' help, develop them.
- Visit museums and art galleries, and read several books on photographic techniques, philosophies, and careers.

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect your interests and available resources, or write new ones to guide and document your activities.

Experience-Based Career Education

PROJECT SKETCH

[illegible]

STUDENT Jack Jones LC Mary Owens DATE 10/25/75

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

photography

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. What is the history of photography?
2. How can I tell the difference between a good photograph and a poor one?
3. What are some of the different types of photography?
4. What requirements are necessary, if any, to become a photographer?
5.
6.
7.
8.

III. WHAT RESOURCES WILL YOU USE?

RP/[✓ RO]/CR *(Circle one)* Sign Newspaper Group Phone 376-1120
Address 630 20th Street

[✓ RP]/RO/CR *(Circle one)* Curtis Evans Phone 845-5740
Address Scott College Photography Department, 900 Farrell Street

RP/RO/[✓ CR] *(Circle one)* University Art Museum Phone 832-1685
Address 458 Circle Drive

OTHER RESOURCES *(Give name of person or title and author of books, articles, etc.)*

Community Resource: Museum of Modern Art, 1063 Ardmore Avenue, 951-7628

I HAVE READ THE RESOURCE GUIDE(S) [X] Yes [ ] No (If not, give reasons)
There is no Community Resource Guide for the Museum of Modern Art.

APPROVED BY LC Mary Owens DATE 10-25-75

LC FOLLOW-UP

[X] The student has decided to do a project in this interest area.

[ ] The student has decided not to pursue this interest further because:

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

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Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT *Jack Jones* PROJECT NO. *3* PACKAGE *Communications and Media*

LC APPROVAL Mary Owens DATE 11-1-75 DATE PROJECT STARTED *10/25/75*

TECHNICAL ADVISOR(S) *(If any)* *Bill Clark (Sign Newspaper Group)*

I. PROJECT DESCRIPTION

A. *Title* *The Camera as a Communications Tool*

PLANNED CREDITS			EBCE Credits
Subject Area(s)	*1.*	*Elective (Photography)*	5
	2.		
	3.		

B. Theme (Please give a brief description of your project)

I will be exploring the various ways in which photography is used to gather and communicate information.

C. Questions to be Investigated:

1. How and where can a photographer best learn his craft?
2. What equipment should I start out with?
3. What makes a good or successful photograph?
4. Can photographs communicate things that words cannot?
5. What are some of the differences between photojournalism, fine arts photography, and snapshots?
6. Can a photographer do any kind of photography he chooses, or does each kind require special skills or talents?
7. Which area of photography do I think would suit me best: photojournalism or fine arts? Why?

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Mid-Term Review	*Initials*	*Date*	*End-of-Term Review*	*Initials*	*Date*

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STUDENT PROJECT PLAN	Page 2 of 4

II. IDENTIFICATION OF RPs, ROs, & CRs

A. Completed Visits (Identify resources already visited for Orientation)

Resource Name	Address	Phone	RP	RO	CR	Hours Spent
Curtis Evans Photography Department	Scott College 900 Farrell Street	845-5740	X			2
Sign Newspaper Group	630 20th Street	376-1120		X		5
University Art Museum	458 Circle Drive	832-1685			X	2

B. Planned Visits (Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)

Resource Name	Address	Phone	Acty *Level			RP	RO	CR	Est. Hours
			O	E	I				
Sign Newspaper Group Bill Clark	630 20th Street	376-1120		X			X		27
University Art Museum	458 Circle Drive	832-1685	X					X	2
Museum of Modern Art	1063 Ardmore Avenue	951-7628	X					X	4
Curtis Evans Photography Department	Scott College 900 Farrell Street	845-5740	X			X			3

* O = Orientation; E = Exploration; I = Investigation

C. Related Reading/Research (Give Titles)

Photographers on Photography, edited by Nathan Lyons

The Family of Man by Edward Steichen

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS (See Resource Guides. Some sites require special insurance, health certificates, etc.)

A. Prequisites none

B. Materials or Equipment camera and film, use of a darkroom

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits 45 Hrs. Product Production 35 Hrs.

B. Reading 15 Hrs. Other (specify) ____ Hrs.

TOTAL HOURS 95

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT 12/31/75

PLANNED PROJECT COMPLETION DATE 1/30/76

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page [illegible] of 4

Student Jack Jones
LC Mary Owens
Project Title The Camera as a Communications Tool

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 1: Understand the camera as a giver and receiver of information, including photo techniques (such as exposure control; black-and-white processing; how to see light; quality black-and-white techniques; special effects in black-and-white printing; and exposing color materials) so that I will be able to use the camera as a means of communication.					
a. Compose a photojournal, with accompanying captions, demonstrating my skill using a camera. The photojournal will contain at least one example of each process.	1/18	Bill Clark			
b. Maintain a notebook recording interview notes, impressions of gallery and museum visits, problems encountered in trying to apply the photographic processes and techniques, and possible solutions to the problems.	1/18	Mary Owens			
GOAL 2: Understand the distinctions, if any, between photojournalism and fine arts photography and how those distinctions affect each career.					
a. Compose two photographic essays showing my impressions of the city: one from a photojournalistic point of view, the other from a purely aesthetic standpoint. Explain the demands and purposes of each career and how these are expressed visually.	1/25	Bill Clark			

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 4 of 4

Student Jack Jones LC Mary Owens Project Title The Camera as a Communications Tool

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 3: Understand how my interests and goals relate to these careers. a. Report in an advisory group meeting my analysis of the differences between the two careers and an evaluation of them in terms of my goals, values, and interests.	1/28	Mary Owens			

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Experience-Based Career Education	COMMUNICATIONS AND MEDIA PACKAGE GOAL CHECKLIST

STUDENT'S NAME *Jack Jones* DATE *11/1/75*

PROJECT TITLE *The Camera as a Communications Tool*

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* ☒ reading ☐ listening ☒ observing *Communicating Information* ☐ writing ☒ speaking ☒ innovating
2. PROBLEM-SOLVING	*All elements*	☒ define the problem or issue ☒ identify sources of information ☒ use appropriate methods for gathering data ☒ organize the information obtained ☒ evaluate proposed solutions
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	☒ a. investigate two careers in terms of: ☒ roles and function of employee ☒ relation of career to other careers ☒ qualifications for entry ☒ working conditions, rewards, benefits ☒ current and projected demand ☒ union or professional affiliations ☒ effects of job on lifestyle ☒ your own evaluation of the career ☐ b. develop career entrance skills in two of the following areas: ☐ obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements ☐ preparing letters of inquiry, applications and resumés ☐ preparing for and performing in interviews ☐ acquiring job-entry skills and career-related experience

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COMMUNICATIONS AND MEDIA PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from either Goal 4 or Goal 5, or you can combine elements from each as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. COMMUNICATIONS AND MEDIA INQUIRY	*At least five elements or five comparable elements*	☒ purposes ☒ form and style ☐ message ☐ medium ☐ audience ☐ messenger ☐ cliché ☐ metaphors and analogies ☐ symbol ☐ distortion ☐ subjective/objective ☐ culture and communication ☐ technology ☐ media ☐ group identity and communication ☐ other (specify) ____________
5. COMMUNICATIONS AND MEDIA TECHNIQUES	*At least five elements or five comparable elements*	☐ select materials, media and styles appropriate for different communications ☒ set up and use basic tools and equipment ☒ identify and use basic processes in their proper sequence ☒ organize and present material for a specific purpose or audience ☒ use different materials or styles to convey the same idea or emotion ☐ use different techniques or idioms to convey different ideas or emotions ☐ develop expertise in using a specific process, instrument, or technique ☐ proofread written materials using proper symbols ☐ interpret and describe communications ☐ critically analyze communications ☐ direct or give a performance ☒ accurately illustrate ideas, processes, or structural forms ☐ other (specify) ____________

Sample Project 4

Three-Dimensional (3-D) Film Making

The purpose of this project is to apply film-making techniques to the actual production of a film. The techniques used will be those peculiar to 8mm 3-D film making. The movie produced will explore the medium of 8mm film and its limitations as well as the medium of three-dimensional visual effects.

- Discuss film making, especially 8mm 3-D film making, with an experimental photography instructor or an experienced film maker. Identify the equipment needed to produce, edit, and project the film. Consult with the RP about production tasks, filming techniques, script writing, and editing throughout the course of your project.

- View commercially produced 3-D films and review the literature on 3-D and 8mm film making.

- Experiment with plain 8mm film to become familiar with 8mm techniques, and the advantages, disadvantages, and limitations of 8mm cameras.

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect your interests and available resources, or write new ones to guide and document your activities.

Experience-Based Career Education

PROJECT SKETCH

Use this form to plan your resource orientations. Obtain your Learning Coordinator's approval before visiting a resource.

STUDENT Patty Brown LC Alice Garcia DATE 9/16/75

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

The techniques of making a three-dimensional film

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. How is a movie camera run and maintained?
2. How is a 3-D movie made?
3. How is a movie edited?
4. What is involved in producing an 8mm movie?
5. How is a movie script written?
6.
7.
8.

III. WHAT RESOURCES WILL YOU USE?

[✓ RP]/RO/CR *(Circle one)* Curtis Evans Phone 845-5740
Address Scott College Photography Department, 900 Farrell Street

RP/RO/CR *(Circle one)* Phone
Address

RP/RO/CR *(Circle one)* Phone
Address

OTHER RESOURCES *(Give name of person or title and author of books, articles, etc.)*

I HAVE READ THE RESOURCE GUIDE(S) [X] Yes [ ] No (If not, give reasons)

APPROVED BY LC Alice Garcia DATE 9/16/75

LC FOLLOW-UP	[X] The student has decided to do a project in this interest area. [ ] The student has decided not to pursue this interest further because:

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

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Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT Patty Brown PROJECT NO. 4 PACKAGE Communications and Media

APPROVAL Alice Garcia DATE 9/30/75 DATE PROJECT STARTED 9/16/75

TECHNICAL ADVISOR(S) (If any) Curtis Evans

I. PROJECT DESCRIPTION

A. Title 3-D Film Making

PLANNED CREDITS

		EBCE Credits
Subject Area(s)	1. Photography	5
	2.	
	3.	

B. Theme (Please give a brief description of your project) This project is concerned with learning and applying the techniques of making a 3-D film and exploring the medium of 8mm film making.

C. Questions to be Investigated:

1. What are the basic techniques of still, motion picture, and 3-D photography?
2. How do you write a script?
3. How is a 3-D film projected?
4. What are the advantages and disadvantages of using 8mm film and film-making equipment?
5. What are the techniques of film editing?
6. What is the purpose of film editing?

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Mid-Term Review Initials Date	End-of-Term Review Initials Date

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STUDENT PROJECT PLAN | Page 2 of 3

II. IDENTIFICATION OF RPs, ROs, & CRs

A. Completed Visits (Identify resources already visited for Orientation)

Resource Name	Address	Phone	RP	RO	CR	Hours Spent
Curtis Evans Photography Department	Scott College 900 Farrell Street	845-5740	X			3

B. Planned Visits (Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)

Resource Name	Address	Phone	Acty *Level			RP	RO	CR	Est. Hours
			O	E	I				
Curtis Evans Photography Department	Scott College 900 Farrell Street	845-5740		X		X			17

* O = Orientation; E = Exploration; I = Investigation

C. Related Reading/Research (Give Titles) Film and Its Techniques, Raymond Spottiswoode; Behind The Camera: The Cinematographer's Art, interviews with leading cinematographers by Leonard Maltin; Movie People, edited by Fred Baker and Ross Firestone.

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS (See Resource Guides. Some sites require special insurance, health certificates, etc.)

A. Prequisites ________

B. Materials or Equipment 8mm camera, two 8mm projectors, splicing machine, screen, splicing tape

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits 20 Hrs. Product Production 50 Hrs.

B. Reading 13 Hrs. Other (specify) ____ Hrs.

TOTAL HOURS 83

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT 11/20/75

PLANNED PROJECT COMPLETION DATE 12/20/75

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page [illegible] 3

Student *Patty Brown* IC *Alice Garcia* Project Title *3-D Film Making*

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 1: Apply the techniques of 3-D film making.					
a. Produce, direct, do the camera work for, write the script for, and edit a 3-D film, the subject of which is the medium of 8mm film and the techniques of 3-D film making rather than a story.	12/20	Curtis Evans			
GOAL 2: Understand the medium of 8mm film, including its advantages, disadvantages, and limitations.					
a. Explain, in a project seminar meeting, the advantages, disadvantages, and limitations of 8mm film making in comparison with other types of film (still, 16mm, 35mm) based on my readings and experiences in film making.	12/15	Package Coordinator			
b. Describe the problems encountered in choosing a subject for my film, the alternatives considered, and why I finally selected the topic I did.	12/15	Package Coordinator			
GOAL 3: Evaluate the careers of film producer and film director and know how my interests and abilities relate to them.					
a. Write a 250-word essay analyzing the careers of film producer and film maker and evaluate them in terms of my own goals, values and interests.	12/18	Alice Garcia			

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Experience-Based Career Education	COMMUNICATIONS AND MEDIA PACKAGE GOAL CHECKLIST

STUDENT'S NAME *Patty Brown* DATE *9/30/75*

PROJECT TITLE *3-D Film Making*

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* ☒ reading ☐ listening ☒ observing *Communicating Information* ☒ writing ☐ speaking ☒ innovating
2. PROBLEM-SOLVING	*All elements*	☒ define the problem or issue ☒ identify sources of information ☒ use appropriate methods for gathering data ☒ organize the information obtained ☒ evaluate proposed solutions
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	☒ a. investigate two careers in terms of: ☒ roles and function of employee ☒ relation of career to other careers ☒ qualifications for entry ☒ working conditions, rewards, benefits ☒ current and projected demand ☒ union or professional affiliations ☒ effects of job on lifestyle ☒ your own evaluation of the career ☐ b. develop career entrance skills in two of the following areas: ☐ obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements ☐ preparing letters of inquiry, applications and resumés ☐ preparing for and performing in interviews ☐ acquiring job-entry skills and career-related experience

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COMMUNICATIONS AND MEDIA PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from either Goal 4 or Goal 5, or you can combine elements from each as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. COMMUNICATIONS AND MEDIA INQUIRY	*At least five elements or five comparable elements*	☐ purposes ☐ form and style ☒ message ☒ medium ☐ audience ☐ messenger ☐ cliché ☐ metaphors and analogies ☐ symbol ☐ distortion ☐ subjective/objective ☐ culture and communication ☐ technology ☐ media ☐ group identity and communication ☐ other (specify) ______________________________ ______________________________ ______________________________
5. COMMUNICATIONS AND MEDIA TECHNIQUES	*At least five elements or five comparable elements*	☐ select materials, media and styles appropriate for different communications ☒ set up and use basic tools and equipment ☒ identify and use basic processes in their proper sequence ☒ organize and present material for a specific purpose or audience ☐ use different materials or styles to convey the same idea or emotion ☐ use different techniques or idioms to convey different ideas or emotions ☐ develop expertise in using a specific process, instrument, or technique ☐ proofread written materials using proper symbols ☐ interpret and describe communications ☐ critically analyze communications ☐ direct or give a performance ☒ accurately illustrate ideas, processes, or structural forms ☐ other (specify) ______________________________ ______________________________ ______________________________

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Sample Project 5

Guitar Playing

This project is designed to help a beginning guitar player learn how to play the guitar. It will also help you begin to listen for and recognize patterns which occur, to some extent, in all music.

- Select an RP who has had professional performing experience playing guitar and who is willing to teach a beginner. It is not necessary that you have an instrument of your own for the first visit, but you will have to have one on which you can practice for later visits. The RP can help you decide what type of guitar you want and need.
- Listen carefully whenever you hear music and try to apply the ideas and concepts you discuss with the RP to music you hear every day.
- Practice every day, even if for only 15 minutes.

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect your interests and available resources, or write new ones to guide and document your activities.

Experience-Based Career Education

PROJECT SKETCH

Use this form to plan your resource orientations. Obtain your Learning Coordinator's approval before visiting a resource.

STUDENT Bob Johnson LC Jim Connors DATE 9/10/75

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

guitar playing

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. What are the differences between acoustic and electric guitars?
2. What are some of the chords basic to popular music?
3. What must you know in order to be able to improvise chords?
4. What are some of the working conditions for musicians?
5. What are union pay scales for musicians?
6. How important to learning how to play and to playing well is the ability to read music?
7.

III. WHAT RESOURCES WILL YOU USE?

[✓ RP]/RO/CR *(Circle one)* Henry Banks Phone 656-8611
Address 14 Allston Way

RP/RO/CR *(Circle one)* Phone
Address

RP/RO/CR *(Circle one)* Phone
Address

OTHER RESOURCES *(Give name of person or title and author of books, articles, etc.)*

I HAVE READ THE RESOURCE GUIDE(S) [X]Yes [ ]No (If not, give reasons)

APPROVED BY LC Jim Connors DATE 9-10-75

LC FOLLOW-UP	[X] The student has decided to do a project in this interest area. [ ] The student has decided not to pursue this interest further because:

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

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Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT Bob Johnson PROJECT NO. 5 PACKAGE Communications and Media

APPROVAL Jim Connors DATE 9-15-75 DATE PROJECT STARTED 9/10/75

TECHNICAL ADVISOR(S) *(If any)* Henry Banks

I. PROJECT DESCRIPTION

A. Title Guitar Playing

PLANNED CREDITS		EBCE Credits
Subject Area(s)	1. Elective (Music)	5
	2.	
	3.	

B. Theme (*Please give a brief description of your project*) The theme of this project is the development of my ability to play chords and songs on the guitar, to recognize the patterns in popular music, and to improve my ear for this type of music.

C. *Questions to be Investigated:*

1. Does all popular music follow a standard pattern?
2. If so, what is it?
3. How do you recognize it?
4. Can I use that pattern to make up my own music?

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Mid-Term Review	*Initials*	*Date*
End-of-Term Review	*Initials*	*Date*

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II. EXPLORATION (RP, RO, CR)

A. Completed Visits (Identify resources already visited for Orientation)

Resource Name	Address	Phone	RP	RO	CR	Hours Spent
Honky Banks	14 Accston Way	656-8611	x			2

B. Planned Visits (Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)

Resource Name	Address	Phone	Actv Level*			RP	RO	CR	Est. Hours
			O	E	I				
Honky Banks	14 Accston Way	656-8611		x		x			40

* O = Orientation; E = Exploration; I = Investigation

C. Related Reading/Research (Give Titles) Rolling Stone newspaper; Down Beat magazine; Guitar Player's magazine; Songwriter's Handbook.

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS (See Resource Guides. Some sites require special insurance, health certificates, etc.)

A. Prequisites ____________

B. Materials or Equipment steel string acoustic guitar

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits 42 Hrs. Practice and Product Production 40 Hrs.

B. Reading 5 Hrs. Other (specify) ____ Hrs.

TOTAL HOURS 87

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT 12/30/75

PLANNED PROJECT COMPLETION DATE 1/30/76

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page [illegible] of 3

Student Bob Johnson **LC** Jim Connors **Project Title** Guitar Playing

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 1: Be able to identify chord changes in popular music.					
a. Correctly identify the chord changes in five songs broadcast on a popular music station or played by the RP.	1/20	Henry Banks			
GOAL 2: Apply the patterns inherent in popular music.					
a. Using the patterns of popular music, improvise melodic variations on three songs and tape my performance.	1/23	Henry Banks & Jim Connors			
b. Propose alternative chords for a song selected by the RP.	1/23	Henry Banks			
GOAL 3: Know the requirements, advantages, and disadvantages of a career as a popular music performer and how my interests and abilities relate to it.					
a. Describe and evaluate the careers of rock-and-roll star and band musician (such as a TV studio band) in terms of my own values, goals, abilities, and interests in an advisory group meeting.	1/30	Jim Connors			

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Experience-Based Career Education	COMMUNICATIONS AND MEDIA PACKAGE GOAL CHECKLIST

STUDENT'S NAME Bob Johnson DATE 9/15/75

PROJECT TITLE Guitar Playing

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* [X] reading [X] listening [X] observing *Communicating Information* [ ] writing [ ] speaking [X] innovating
2. PROBLEM-SOLVING	*All elements*	[X] define the problem or issue [X] identify sources of information [X] use appropriate methods for gathering data [X] organize the information obtained [X] evaluate proposed solutions
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	[X] a. investigate two careers in terms of: [X] roles and function of employee [X] relation of career to other careers [X] qualifications for entry [X] working conditions, rewards, benefits [X] current and projected demand [X] union or professional affiliations [X] effects of job on lifestyle [X] your own evaluation of the career [ ] b. develop career entrance skills in two of the following areas: [ ] obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements [ ] preparing letters of inquiry, applications and resumés [ ] preparing for and performing in interviews [ ] acquiring job-entry skills and career-related experience

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COMMUNICATIONS AND MEDIA PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from either Goal 4 or Goal 5, or you can combine elements from each as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. COMMUNICATIONS AND MEDIA INQUIRY	*At least five elements or five comparable elements*	[ ] purposes [ ] form and style [ ] message [ ] medium [ ] audience [ ] messenger [ ] cliché [ ] metaphors and analogies [ ] symbol [ ] distortion [ ] subjective/objective [ ] culture and communication [ ] technology [ ] media [ ] group identity and communication [X] other (specify) identifying common chord patterns in popular music
5. COMMUNICATIONS AND MEDIA TECHNIQUES	*At least five elements or five comparable elements*	[ ] select materials, media and styles appropriate for different communications [ ] set up and use basic tools and equipment [X] identify and use basic processes in their proper sequence (chord progressions) [X] organize and present material for a specific purpose or audience [ ] use different materials or styles to convey the same idea or emotion [ ] use different techniques or idioms to convey different ideas or emotions [ ] develop expertise in using a specific process, instrument, or technique [ ] proofread written materials using proper symbols [ ] interpret and describe communications [ ] critically analyze communications [X] direct or give a performance [X] accurately illustrate ideas, processes, or structural forms [ ] other (specify)

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807

Sample Project 6

Painting

This project is an introduction to some of the types of materials used for fine arts painting. It focuses on exploring the qualities of those materials and the effect their qualities have on the type of subject for which they are judged to be most suited by the artist.

- Visit an RP who is experienced in working with painting and drawing materials. Discuss the materials you will need, basic equipment and techniques, and what you want to do for your project.
- Study the use of different techniques and materials with your RP. Paint. Keep a journal to record what you discover as you work with different materials. Show your painting to your RP and seek advice and criticism.
- Visit some of the local museums and galleries. Compare paintings using watercolor, oil, and acrylic. How do they differ? What is the thickness of the paint? What are the subjects of the paintings? Is there a pattern to the subjects of various painters' works that can be identified according to the kind of paint used? What moods seem to be best expressed with which kinds of paint? Why?

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect your interests and available resources, or write new ones to guide and document your activities.

Experience-Based Career Education

PROJECT SKETCH

Use this form to plan your resource orientations. Obtain your learning coordinator's approval before visiting a resource.

STUDENT Jill Parks LC Ted Grant DATE 9/13/75

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

painting and drawing

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. Are different skills required for drawing and for painting?
2. What are some of the differences between painting and drawing?
3. What can you do with paint that you cannot do with pens, pencils, or pastel?
4. Which is easier?
5.
6.
7.
8.

III. WHAT RESOURCES WILL YOU USE?

[✓ RP]/RO/CR *(Circle one)* Marjorie Olsen Phone 275-3092
Address Studio One, 1520 Shore Avenue

RP/[✓ RO]/CR *(Circle one)* Parks and Recreation Department Phone 275-3579
Address Central Office, 1520 Shore Avenue

RP/RO/CR *(Circle one)* Phone
Address

OTHER RESOURCES ***(Give name of person or title and author of books, articles, etc.)***

I HAVE READ THE RESOURCE GUIDE(S) ☒ Yes ☐ No (If not, give reasons)

APPROVED BY LC T. Grant DATE 9/13/75

LC FOLLOW-UP
☒ The student has decided to do a project in this interest area.
☐ The student has decided not to pursue this interest further because:

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

Distribution: Original (White) - LC; Yellow - Student; Pink - Resource Analyst

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809

Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT Jane Marks PROJECT NO. 6 PACKAGE Communications and Media

APPROVAL Ted Grant DATE 9/30/75 DATE PROJECT STARTED 9/20/75

TECHNICAL ADVISOR(S) (If any) Jim Connors (Package Coordinator)

I. PROJECT DESCRIPTION

A. Title Painting

PLANNED CREDITS		EBCE Credits
Subject Area(s)	1. Elective (Art)	5
	2.	
	3.	

B. Theme (Please give a brief description of your project) This project is an exploration of different types of paint and ways of using them. I will use watercolor, acrylic, and oil-based paints to compare the texture and quality of these media.

C. Questions to be Investigated:

What are the advantages and disadvantages of watercolor, acrylic, and oil-based paint? What are the limitations of each? What kinds of skills are required for each kind of paint? Is one easier to work with than the others? Why? Do the qualities of the paint have any affect on the subject of the painting? Why?

FOR LEARNING COORDINATOR USE ONLY

Mid-Term Review Initials Date	End-of-Term Review Initials Date

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STUDENT PROJECT PLAN | Page 2 of 4

II. IDENTIFICATION OF RPs, ROs, & CRs

A. Completed Visits (Identify resources already visited for Orientation)

Resource Name	Address	Phone	RP	RO	CR	Hours Spent
Marjorie Olsen	Studio One 1520 Shore Avenue	275-3092	X			2
Parks and Recreation Department	Central Office 1520 Shore Avenue	275-3579		X		2

B. Planned Visits (Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)

Resource Name	Address	Phone	Acty *Level			RP	RO	CR	Est. Hours
			O	E	I				
Marjorie Olsen	Studio One 1520 Shore Avenue	275-3092		X		X			35
Philip LaSalle	Art Institute 1681 Chestnut	631-0293	X			X			3

* O = Orientation; E = Exploration; I = Investigation

C. Related Reading/Research (Give Titles)

Painter's Companion: A Basic Guide to Studio Methods and Materials by R. Kay;
History of Art, H.W. Janson.

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS (See Resource Guides. Some sites require special insurance, health certificates, etc.)

A. Prequisites

B. Materials or Equipment paint, paper, canvas, brushes

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits 42 Hrs. Product Production 35 Hrs.

B. Reading 15 Hrs. Other (specify) ____ Hrs.

TOTAL HOURS 92

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT 12/20/75

PLANNED PROJECT COMPLETION DATE 1/30/76

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 1 of 4

Student Jane Marks **LC** Ted Grant **Project Title** Painting

	For Indicators		For Evaluator's Use		
Goals and Indicators	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 1: Understand the differences between watercolor, acrylic, and oil-based paints and how these differences affect the use of those materials in painting.					
a. Do three sketches: one using watercolors, one using oils, and one using acrylics.	12/20	Marjorie Olsen			
b. Describe, in a weekly journal, the qualities of each type of paint, the problems encountered in learning how to use it, its limitations, its advantages and disadvantages, and under what circumstances it seems to work best or be most appropriate to use.	1/30	Ted Grant, Marjorie Olsen			
GOAL 2: Develop technical skill in using one type of paint.					
a. Select one type of paint to use for a final painting. Explain the reasons for my choice, and how its texture and qualities relate to my painting skills and to the subject of the painting in the project seminar.	12/20	Package Coordinator			
b. Complete the painting, demonstrating skill in using the medium.	1/30	Marjorie Olsen			
(continued on next page)					

USE AS MANY COPIES OF THIS PAGE AS ARE NECESSARY

NWL-EBCE [illegible]

STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 4 of 4

Student Jane Marks **LC** Ted Grant **Project Title** Painting

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 3: Know the requirements, advantages, and disadvantages of the careers of art teacher and self-supporting artist, and how they relate to my interests and abilities.					
a. Evaluate the careers of art teacher and artist in terms of my own interests, goals, values and abilities on Career Orientation Guides.	1/30	Ted Grant			

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Experience-Based Career Education	COMMUNICATIONS AND MEDIA PACKAGE GOAL CHECKLIST

STUDENT'S NAME *Jane Marks* DATE *9/30/75*

PROJECT TITLE *Painting*

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* [X] reading [X] listening [X] observing *Communicating Information* [X] writing [ ] speaking [X] innovating
2. PROBLEM-SOLVING	*All elements*	[X] define the problem or issue [X] identify sources of information [X] use appropriate methods for gathering data [X] organize the information obtained [X] evaluate proposed solutions
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	[X] a. investigate two careers in terms of: [X] roles and function of employee [X] relation of career to other careers [X] qualifications for entry [X] working conditions, rewards, benefits [X] current and projected demand [X] union or professional affiliations [X] effects of job on lifestyle [X] your own evaluation of the career [ ] b. develop career entrance skills in two of the following areas: [ ] obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements [ ] preparing letters of inquiry, applications and resumés [ ] preparing for and performing in interviews [ ] acquiring job-entry skills and career-related experience

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COMMUNICATIONS AND MEDIA PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from either Goal 4 or Goal 5, or you can combine elements from each as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. COMMUNICATIONS AND MEDIA INQUIRY	*At least five elements or five comparable elements*	☐ purposes ☐ form and style ☐ message ☒ medium ☐ audience ☐ messenger ☐ cliché ☐ metaphors and analogies ☐ symbol ☐ distortion ☐ subjective/objective ☐ culture and communication ☐ technology ☐ media ☐ group identity and communication ☐ other (specify) ____________________ ____________________ ____________________
5. COMMUNICATIONS AND MEDIA TECHNIQUES	*At least five elements or five comparable elements*	☐ select materials, media and styles appropriate for different communications ☒ set up and use basic tools and equipment ☒ identify and use basic processes in their proper sequence ☒ organize and present material for a specific purpose or audience ☒ use different materials or styles to convey the same idea or emotion ☐ use different techniques or idioms to convey different ideas or emotions ☒ develop expertise in using a specific process, instrument, or technique ☐ proofread written materials using proper symbols ☐ interpret and describe communications ☐ critically analyze communications ☐ direct or give a performance ☐ accurately illustrate ideas, processes, or structural forms ☐ other (specify) ____________________ ____________________ ____________________

Resources

Resources by Career/Discipline Category
(Effective August 1975)

	WRITTEN AND VERBAL ARTS	MEDIA ARTS	CRAFTS AND FINE AND PERFORMING ARTS
RESOURCE PERSONS	Betty Ann Brewster - *Public Service Producer, KTVJ* Jim Collier - *Editor, The Daily Barb* Kathy Dudley - *Writer/Editor, Out Front Press* Curtis Evans - *Instructor, Scott College, Photography Department* Helen Graves - *News Director, KJOY News Bureau* Ella Harris - *Vice President, Clay Book Company* Bob Jefferson - *Disc Jockey, KOOL Radio* Louis McGuckin - *Public Relations Manager, Union Chemical Company* Teresa Morales - *Director of Public Services, University Rare Book Library* Bill Pfeiffer - *Secretary, Municipal Utilities District* Christian Schweizer - *Poet, artist, craftsman* Mark Silva - *Public Information Coordinator, Municipal Public Library* Hunter Wilson - *Producer, Earth News Video-Radio*	Betty Ann Brewster - *Public Service Producer, KTVJ* Jim Collier - *Editor, The Daily Barb* Vince Cortese - *Owner, Video Images* Kathy Dudley - *Writer/Editor, Out Front Press* Curtis Evans - *Instructor, Scott College, Photography Department* Helen Graves - *News Director, KJOY News Bureau* Bob Jefferson - *Disc jockey, KOOL Radio* Jesse King - *Chief Engineer, KER Radio* Jim Martinez - *Publisher, The Daily Gazette* Louis McGuckin - *Public Relations Manager, Union Chemical Company* Bill Pfeiffer - *Secretary, Municipal Utilities District* Mike Polansky - *Production Manager, Elephant Press* Larry Romano - *Director, Printers' Institute* Vicky Santana - *Public Access Director, City Cable Vision* Hunter Wilson - *Producer, Earth News Video-Radio* Dorothy Wing - *Program Director, KOOL Radio*	Henry Banks - *Guitarist* Robert Charles - *Architect* Curtis Evans - *Instructor, Scott College, Photography Department* David Jordan - *Manager, The Tapestry Works* Virginia Kaplan - *Director, Municipal Community Center* Philip LaSalle - *Director of Exhibitions, Art Institute* Frank Lee - *Architect* Ethel Lewis - *Manager, Municipal Symphony Youth Orchestra* Louis McGuckin - *Public Relations Manager, Union Chemical Company* Robert Milne - *Self-employed boat builder* Marjorie Olsen - *Teacher Artist, Studio 1* Bill Pfeiffer - *Secretary, Municipal Utilities District* Mike Polansky - *Production Manager, Elephant Press* Larry Romano - *Director, Printers' Institute* Christian Schweizer - *Poet, artist, craftsman*
RESOURCE ORGANIZATIONS	City Parks and Recreation Department History of Women Library Sign Newspaper Group	Pacific Printers Sign Newspaper Group	City Parks and Recreation Department Pacific Printers Rose's Department Store Sign Newspaper Group
COMMUNITY RESOURCES	Bay Sentinel KPAT Radio Latino Library Municipal Public Library	Bay Sentinel KPAT Radio	City Museum University Art Museum

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Resource Persons
(Effective August 1975)

Henry Banks	Professional guitarist. Learn the patterns inherent in all types of popular music and how to play them on the guitar.
Betty Ann Brewster	Public Service Producer for KTVJ. Learn about television production and broadcasting. Research issues and people; learn how to select what to broadcast; and learn how to do the necessary work for 10 minutes of air time on her Sunday afternoon show.
Robert Charles	A member of the Charles Partnership, Architects, and Planners. Explore the roles that design, photography, and graphic arts play in the field of architecture.
Jim Collier	Managing Editor of The Daily Barb. Help in the production of the paper and develop interview, writing, and organizational skills. Learn one newspaper's style of journalism.
Vince Cortese	Owner of Video Images. Observe the production, direction, camera work, sound, and editing which go into producing a videotape. Learn the techniques by practicing on a mock-up.
Kathy Dudley	A writer and editor for Out Front Press. Learn to research, write, and edit materials, as well as how to produce layouts and graphics for publishing.
Curtis Evans	Instructor in the Scott College Photography Department. Learn how to operate a camera (8mm, 16mm, and 32mm), how to direct, write scripts, and edit films. Discuss such careers as teaching, directing, producing, and photographing films. Curtis' avocation is fine arts photography.
Helen Graves	News Director at KJOY News Bureau. Learn how to report and write news stories; "dig up" newsworthy events; cover "leads"; and learn the difference between writing for radio and for a newspaper.
Ella Harris	Vice President of the Clay Book Company, as well as a cataloger and bibliographer of antiquarian books. She is an excellent resource for almost anything to do with books. Learn and use cataloging, bibliographic, and antiquarian skills; discuss your writing skills and get help with them; or use the bookstore as a research resource.

Bob Jefferson	Disc jockey at radio station KOOL. Explore the career of radio broadcaster from script writing to performing. Report on events concerning high school students, or acquire an FCC third-class broadcasting license.
David Jordan	Owner and Manager of the Tapestry Works. Learn the history of tapestry weaving. Develop the techniques and skills involved and use them by helping David make some of his designs.
Virginia Kaplan	Director and coordinator of activities at the Municipal Community Center. Use your skills in any area of arts and crafts (woodworking, painting, jewelry making, weaving, etc.) to learn how to teach preschool, elementary, intermediate, or senior citizens. Or learn a craft with Virginia's help.
Jesse King	Chief Engineer at radio station KER. Find out how an engineer fits into the broadcasting industry and learn about the technical operation and maintenance of radio equipment. Build your own school station, learn how to repair equipment, or acquire a broadcast license.
Philip LaSalle	Director of Exhibitions at the Art Institute. Learn how to set up an exhibit at the Institute Gallery including picking up and packing the exhibit pieces, arranging them in the gallery, attending the opening, and cleaning up afterwards. Discuss art and art exhibits in general.
Frank Lee	Partner and architect in the firm of Lee, Chang, and Associates. Explore environmental design, and how and what buildings communicate to their occupants and users. Develop drafting skills, visit construction sites, and research building ordinances.
Ethel Lewis	Manager of the Municipal Symphony Youth Orchestra. Depending on individual interests and abilities, listen to rehearsals and participate in the Youth Orchestra.
Jim Martinez	Owner, Editor, and Publisher of The Daily Gazette, the county's official legal newspaper. Learn about the requirements of legal communications and about publishing and the newspaper business. Develop printing skills and learn how to proofread.
Louis McGuckin	Public Relations Manager for Union Chemical Company. Learn how to create an advertisement; discuss communications techniques; and apply your skills in photography, art, graphics, and writing to projects on communications, advertising, and public relations.

Robert Milne	Self-employed landlord and boat builder. Develop skills using hand power tools, building and designing boats, doing carpentry, and in a variety of other areas of building and remodeling crafts.
Teresa Morales	Director of Public Services for the University Rare Book Library. Assist in designing and developing displays and exhibits; learn and apply research techniques; acquire librarianship skills; and explore the rare books and other materials in this collection.
Marjorie Olsen	Teacher and artist at Studio One, part of the City Department of Parks and Recreation. Learn different pottery techniques and how to create graphics for posters, brochures, and flyers while working with children and various age groups. Develop skills in painting and teaching.
Bill Pfeiffer	Secretary to the Municipal Utility District (MUD). Participate in public relations activities; attend state policy meetings; develop and apply audio-visual skills and techniques; and develop and apply writing, research, group dynamics, photography, and graphics skills.
Mike Polansky	Production Manager of Elephant Press, a graphics, letterpress, and lithographic printing company. Develop skills in poster design and layout, silk screening, or other graphic arts. Learn how to capture graphically and communicate your own and others' ideas.
Larry Romano	Director of the Printers' Institute, the school for the Lithographers' and Photoengravers' Union. Learn the crafts of stripping, platemaking, photoengraving, and running presses. Discuss union trades and apprenticeships.
Vicky Santana	Public Access Director for City Cable Vision. Learn how to use video equipment, create and produce a program, and serve as an assistant to Vicky.
Christian Schweizer	Besides being a part-time special delivery messenger, Chris Schweizer sculpts, paints, remodels older homes, makes woodcuts and jewelry, and writes. Discover what it takes to have a book of poetry published. Acquire carpentry, painting, and other home remodeling skills. Learn how to remodel a house and learn about building codes.
Mark Silva	Public Information Coordinator for the Municipal Public Library. Communicating information to the public about the library is his job. Learn about the purpose and organization of a library; how to keep the public informed about it and its special programs; and cataloging techniques.

Hunter Wilson	Editor, announcer, and co-producer of Earth News Video-Radio. Develop writing, radio, and some video media skills. Learn how to operate some of the equipment; learn research, writing, and perhaps some announcing skills.
Dorothy Wing	Program Director for KOOL Radio. Learn who decides what programs will go on the air, when, why. Find out how the listening public can influence such decisions.

Resource Organizations
(Effective August 1975)

City Parks and Recreation Department	The Recreation Division of the City Parks and Recreation Department has a wide variety of opportunities to explore teaching as a method of communicating and to develop skills in the arts and crafts. (Several RPs have been developed here. See the Resource Guide on Marjorie Olsen. If you have some other interest, try developing your own RP in another area of the Recreation Division.
History of Women Library	The library collects, catalogs, and microfilms information about the history and development of the women's movement, information about or by women and about issues important to women (child care, abortion, employment laws, etc.). Learn how to record information and make it available to other people. Develop cataloging skills.
Pacific Printers	A small commerical printing firm where you can learn about and develop skills in composing, photoengraving, lithography, bookbinding, and press operation.
Rose's Department Store	A retail department store with a variety of departments open to exploration. Develop display-arranging skills, and experience in the use and combination of colors, textures, and materials in the window display and interior decorating departments. Learn how our visual and physical environments communicate to us.
Sign Newspaper Group	The Sign Group is made up of six newspapers including Ciudad, a bilingual paper. Explore all phases of news reporting including writing, photography, page design, drawing, and typesetting.

Community Resources
(Effective August 1975)

Bay Sentinel	An "alternative" newspaper which specializes in investigative reporting of local issues.
City Museum	The City Museum houses exhibits on the history of the state, natural history, arts and crafts, and special exhibits. The museum has a film program every year for a small admission charge and sells books, prints, and other materials.
KPAT Radio	A listener-sponsored, non-commercial radio station which is partly staffed by volunteers.
Latino Library	A library of books, magazines, and other information directly relating to Spanish-speaking people. It also contains many books and articles in Spanish.
Municipal Public Library	A lending storehouse of books, magazines, records, microfilm, and other materials.
University Art Museum	The University Art Museum has a collection of contemporary art and rotates exhibits regularly throughout the year. The museum is also the home of the Howard Film Archive where international and American films are shown every evening.

Bibliography

The following books can be found in the school or public library or at local bookstores. Most should be available in paperback. Some can probably be found in used bookstores.

Ashe, James. Third Class Operator-Announcer Study Book. Blue Ridge Summit, Pa.: TAB Books, 1974.

Barrett, Marvin, ed. The Politics of Broadcasting. New York: Thomas Y. Crowell Company, 1973.

Bateson, Gregory. Steps to an Ecology of Mind. New York: Ballantine Books, Inc., 1972.

A difficult but interesting book about the relationship between culture and how one communicates. Bateson explores the effect society has on the way its members interpret others' actions, behavior, words, and arts.

Brindze, Ruth. Not to Be Broadcast: The Truth About the Radio. Civil Liberties in American History Series. New York: Da Capo Press, Inc., 1974.

Buxton, Frank, and Owen, Bill. Big Broadcast: 1920-1950, rev. ed. New York: Viking Press, Inc., 1972.

Coleman, Howard. Case Studies in Broadcast Management. Studies in Media Management. New York: Hastings House Publishers, Inc., 1970.

Fisher, Hal. How to Become a Radio Disc Jockey. Blue Ridge Summit, Pa.: TAB Books, 1971.

Fredericksen, H. Allan. Community Access Video. Menlo Park, Calif.: Nowels Publications, 1972.

An excellent how-to manual for videotape enthusiasts. It includes everything from sample documents necessary to start your own video station to instructions on how to select and use equipment.

Hall, Edward T. The Hidden Dimension. Garden City, N.Y.: Doubleday & Company, Inc., 1966.

A continuation of his line of thought in The Silent Language. A very readable book in which Hall explores the relationship between environment and culture and human perceptions. He is particularly concerned with the effects overpopulation has on human behavior and communication.

------. The Silent Language. Garden City, N.Y.: Doubleday & Company, Inc., 1959.

A perceptive analysis of how people communicate other than by the written and spoken word. Well written and easily understood by the nonprofessional.

Huss, Roy, and Siverstein, Norman. The Film Experience. New York: Dell Publishing Company, Inc., 1968.

An advanced and sometimes abstract book which deals mainly with film aesthetics.

McLuhan, Marshall. The Mechanical Bride. Boston: Beacon Press, 1951.

An enduring analysis of advertisements, newspaper headlines and comic strip characters as a means of illustrating writing styles and techniques used in the media.

------. Verbi- Voco- Visual Explorations. New York: Something Else Press, Inc., 1967.

The book does what its title suggests. It can be opened up at any page; there is no need to start at the beginning and read to the end.

"Public Relations: Making the Media Work for You. How to Make Your News Their News." Ms. Magazine, April, 1974.

Rider, John R. Your Future in Broadcasting. Careers in Depth Series. New York: Rosen Press, 1971.

Ross, Lillian. Picture: A Story About Hollywood. New York: Rinehart and Company, Inc., 1952.

One of the best books written on the making of a feature film. An interesting account of the filming of Stephen Crane's book, The Red Badge of Courage.

Sartre, Jean-Paul. The Words. New York: Fawcett World Library, 1968.

An interesting autobiography of a writer and philosopher best known for his theories of existentialism. The book includes chapters on the role reading and writing played in his life.

Settle, Irving. Pictorial History of Broadcasting, rev. ed. New York: Grossett & Dunlap, Inc., 1967.

Shamberg, Michael, and Raindance Corp. Guerrilla Television. New York: Holt, Rinehart & Winston, 1971.

An analysis of commercial television plus a manual on how to start your own production studio. Includes almost everything the beginner needs to know.

Taylor, Sherril W., ed. Radio Programming in Action. New York: Hastings House Publishers, Inc., 1967.

U.S. Government. The Report of the Commission on Obscenity and Pornography. New York: Bantam Books, 1970.

The complete text of the 1967 congressional commission to investigate the effects of pornography and obscenity on the people of the United States.

Walker, Kenneth. The Extra-Sensory Mind. San Francisco: Perennial Library, 1961.

An exploration and evaluation of telepathy, inspiration, and prophetic dreams.

In addition, the library has the latest editions of Books in Print and other bibliographical and reference materials. The library also subscribes to Rolling Stone, Advertising Age, Saturday Review, and other weekly and monthly magazines and journals.

13. Life Science

Life Science Package

Principal Authors:

Nancy Banker
Karen M. Chatham

Series Editor:

James N. Johnson

Developed Under the Direction of:

Karen M. Chatham

January 1976

Experience-Based Career Education Program
FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT
1855 Folsom Street, San Francisco, California 94103

This handbook was created by the FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT under contract to the National Institute of Education (NIE). The opinions expressed here do not necessarily reflect the opinion of NIE nor endorsement by any other government agency.

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Table of Contents

Page

INTRODUCTION 1

PROJECT IDEAS 3

CAREERS YOU CAN EXPLORE 5

HOW TO PLAN AND COMPLETE A PROJECT 7

PROJECT SEMINARS 11

USING THE PACKAGE GOALS 13

LIFE SCIENCE PACKAGE GOALS 15

LIFE SCIENCE PACKAGE GOAL CHECKLIST 19

COURSE EQUIVALENCIES 21

SAMPLE PROJECTS 23

  Sample Project 1: Botany 25
  Sample Project 2: Zoological Gardens 35
  Sample Project 3: Birds 43

RESOURCES

  Resource Persons 53
  Resource Organizations 57
  Community Resources 59
  Bibliography 61

Introduction

> *We are one of many appearances of the thing called Life; we are not its perfect image, for it has no image except Life, and life is multitudinous and emergent in the stream of time.*
>
> *-- Loren Eiseley*

Human beings frequently forget their essential animal qualities and their place among living things -- especially those of us who live in technological, urban societies. We often consider ourselves the end product of evolution, as though evolution is something that happened in the past, something whose sole purpose was to develop mankind. We isolate ourselves from other living things. We insulate ourselves against the sun, wind, rain, and snow. Where once we knew our role in the web of life by directly interacting with other living things from birth through adulthood, now we have to search for it. We have to make a special effort to get in touch with nature -- to make contact with plants and animals -- by camping out in remote areas, observing life in its "natural" habitats, or growing plants in boxes on patios.

Because you are a living organism that must relate to its environment, life science is important to you. It can help you understand the integrity of life: how living things interact with one another and their environment; how they are born, how they live, grow and die; and how you are a part of their world and they of yours.

The Life Science Package is designed to help you plan projects to learn more about yourself and other life forms, to investigate careers, subjects and issues that interest you, and to develop skills and techniques used to study living things. It does this by offering ideas and suggestions for projects throughout the package. Check the list of resources at the end for people and organizations you might work with. Usé the sample projects as models in developing your own Project Plan. The section on how to plan and carry out a project gives detailed instructions to help you get started.

Your Learning Coordinator will use the package goals and requirements to determine, with you, the kind and amount of credit your project will earn. Study them before you begin planning your project so you'll have an idea of the kinds of things you should include in your Plan. Attend the Life Science Project Seminar to get additional ideas, broaden your knowledge of the field, learn what other students are doing, and share your experiences with them.

Project Ideas

The following topics suggest just a few of the careers, subjects and issues around which you can plan a life science project. Look through the sample projects (beginning on page 23) for other ideas.

Pollution

Pollution of the water, the air, and the earth has become a topic of concern all over the world. What is pollution? What are some of its causes? What kinds of pollutants can be found in the water and the air in your community? How can the kind and amount of pollutants be determined? How can you find out if (and how) pollution is affecting the plant and animal life in your community? How aware of pollution problems are the people in your city? What local ordinances, if any, have been passed to control pollution? Are those ordinances effective? What do some of the older people in your town say it was like ten years ago? Twenty? Fifty? What do you think it will be like 50 years from today? Why?

The Design of Scientific Equipment

Most scientists at some time or another depend upon special equipment to help them record their observations, give them accurate measurements and readings, and interpret their findings. Where does this equipment come from? How are scientific investigations hindered or helped by the lack or availability of equipment? How do scientists and technicians work together to develop needed equipment? How have newly developed materials and other technological advances affected research in the biological sciences?

Nutrition

People are becoming increasingly aware of the effects on their health of the foods and chemicals they eat. What is the relationship between food and health? What does medical science understand about the relationship between nutrition and preventative medicine? Is organic food better for the human body? Why? Is there a difference between natural chemicals, vitamins, minerals, and other substances, and artificially developed ones? What is it? What should the average person know about nutrition and eating habits?

Agriculture

Agriculture and food production have become highly technical and scientific. How have recent technological advances and the movement of people from rural to urban areas changed methods of food production in this country? What effects has the development of a mechanized agriculture industry (and the decline of the independent farmer) had on the quality of food, the kinds grown, and how food is grown and harvested? Will we be able to increase food production indefinitely to meet the needs of a growing population? How? Is the quality of our food improving? Why? Can it be improved? How? How do the sciences of agriculture and botany work together to produce food? Are there some largely untapped or undeveloped sources of food? What are they? Why aren't they used, or used more?

Careers You Can Explore

Careers in the field of life science share a common concern for understanding the origins of life and for learning how things live, the effects of the environment on living organisms, and how to improve the quality of life without endangering any species. Through your project, working with resources in the community, and learning more about the problems and possibilities in this field, you can explore some of these careers and, at the same time, learn about your own interests and goals.

- agricultural aide
- agriculturalist
- agronomist
- animal breeder
- animal shelter attendant
- artificial breeding technician
- bacteriologist
- bee keeper
- biochemist
- botanist
- cattle rancher
- dietician
- ecologist
- entomologist
- farmer
- feed research aide
- florist
- forester
- game farmer
- game warden
- gardner
- horticulturist
- landscape architect
- laboratory technician
- marine biologist
- medical technologist
- milk tester
- natural science museum curator
- naturalist
- nurse
- nutritionist
- physician
- plant breeder
- plant taxonomist
- research equipment designer
- science writer
- seed analyst
- teacher
- veterinarian
- veterinarian's assistant
- wood technologist
- zoo attendant

How to Plan and Complete a Project

Your project might begin with a desire to explore a career, to dig into a social, scientific, or political problem, to work with a particular resource, or to earn credits required to graduate or to pursue your educational and career goals. Wherever you start, you will need shortly to decide what you will be doing, with whom, and what you plan to learn about or learn how to do through your project. You are essentially planning your own course of study, just as a teacher must plan a class. Your plans must be in writing so that you, your Learning Coordinator, and the resources with whom you are working all know what you hope to accomplish. Your plans will grow and change as you work on the project; make sure these changes are recorded and approved by your Learning Coordinator (LC). At a time agreed upon by you and your LC -- about one month before you plan to complete your project -- you will be asked to develop a final Project Plan which then becomes a learning contract you are promising to keep in return for the credit you seek. Below are some pointers for how to plan and complete a project. They offer a guide only. Where you will need to start and how you will proceed depends on how clear an idea you have of what you want to do. Beginning from scratch, you should do the following.

Finding a Topic

1. Read through the project ideas, sample projects, and lists of resources in the packages to find out what you can do and learn with the people and organizations who are ready to work with you.
2. Meet with your LC to discuss your interests:
   - what you want to explore -- a career, a subject, an issue, or a combination of these -- and the kinds of things you would like to learn;
   - which package you should use, who is coordinating it, and when the project seminar meets; and
   - which resources you want to or ought to contact.

3. Attend some project seminar meetings to:

   - get ideas, suggestions, and assistance in planning your project from the Package Coordinator and the other students, and

   - broaden your knowledge of careers, issues, problems, ideas, and techniques related to the package.

4. Choose some resources that interest you, plan Orientation visits using a Project Sketch, visit the resources, discuss your ideas with them, and explore possible project topics. The purpose of your Orientations should be to help you find out what you want to learn about or learn how to do, where, and with whom. NOTE: You must go beyond these brief Orientations to really plan and complete a worthwhile project. You may wish to broaden your knowledge of an issue or career by visiting several resources and working with one or two at the Exploration level. Or you may wish to dig into a subject or career and develop some expert knowledge or skills through working with one resource for an extended period of time.

Developing a Plan

5. When you have settled on an area of interest, start planning your project on a Student Project Plan. See the sample projects in this package for models. If you have trouble understanding what your project should look like on paper, see your LC and the Package Coordinator. After three or four Orientation visits to resources, you should be able to do the following (and complete the appropriate sections of the Project Plan):

   - Describe the theme of your project.

   - Pose significant questions you will investigate.

   - List the resources you have used and plan to use in completing your project. (If no resources are available in your area of interest, you may have to recruit some yourself. Ask your LC and the Resource Analyst for help.)

   - Identify related reading or other research materials you will use and how you will use them.

   - Identify special requirements or prerequisites.

   - Estimate how long your project will take.

6. After two or three more visits with your resources, you should be able to:

   - State what you want to learn about or learn how to do through your project (your goals) and how you will demonstrate you have learned it (your indicators). Pace your work by making some indicators due earlier than others. Be sure that your goals and indicators include at least one product. REMEMBER: You can change, refine, add to, or delete goals and indicators until the cutoff date decided upon by you and your LC, after which your Project Plan becomes a learning contract.

   - If you want someone in addition to your LC to evaluate your work (such as a Resource Person or the Package Coordinator), ask that person if he or she is willing to do it. Only those who have agreed to evaluate your products and/or performance should be listed as evaluators on the last page(s) of your Student Project Plan.

   - Be sure that your project will be worth the amount and type of credit you wish to receive. (With your LC, compare your project goals and indicators with the package goals using the goal checklist.) If you cannot meet the package requirements for the amount and type of credit you want with one project, do two.

   - Be sure to discuss your project topic with your resources and work with them to firm up your Plan.

Completing Your Project

7. Work with your resources, do your research and related reading, and have weekly discussions with your LC, keeping him or her informed of your interests, goals, and activities.

8. Whenever possible, relate work you are doing in workshops or other supplementary activities to your projects. (For example, bring early drafts of project reports to your English instructor or tutor to have them reviewed and critiqued.)

9. Attend project seminar meetings to give progress reports, share your experiences, get help in solving problems you encounter, and learn how other students' projects and yours are related to a common subject/career area.

10. Wrap up your project and submit it for credit by:

    - completing products and performance tests which demonstrate what you have learned. (Products can be written reports or essays, photographic essays or drawings, audio- or videotape recordings, or other media. Performance tests can be oral reports, presentations, or actual tasks at a resource site.)

- having your products and/or performance reviewed and evaluated by the persons designated on your Project Plan. (Be sure your evaluators record their assessments on the last page(s) of your Project Plan. If you agree with the evaluation, add your initials. If you disagree, state your reasons in the "Comments" column.)

- completing a Project Summary Report evaluating your own work and requesting the amount and type of credit you think you have earned through your project.

11. Turn in your Student Project Plan, product(s), and Project Summary Report to your LC for review, evaluation, and assignment of credit.

842

Project Seminars

One of the ways to make learning come alive is to talk about it -- to share what turns you on most, get help with problems, see if your insights make sense to others, and maybe even argue some about ideas or solutions. Project seminars are a series of meetings where students working in related subject areas can come together and rap about questions and issues common to the field they're all exploring. The meetings can be useful in a number of ways.

- First, they can help you with ideas for projects. If you don't already have one, listening to other students kick around their interests may trigger an idea of your own, some direction you hadn't thought of. If you do have a project in mind, these discussions can help you clarify and focus it, plus give you some good leads for resources to visit.

- You can't be sure what you know or how well you know it until you try to explain it to someone else. Testing your findings on others, bouncing ideas or conclusions off them, and describing particular experiences can help you get a firmer grasp on what you're learning. You may find you know more than you thought or see that some of your answers need rethinking.

- Through your own project, you will be able to explore only some of the interesting ideas, techniques, issues, and careers related to this package. Your fellow students will have the same problem. But together, in the project seminars, you can learn from each other's research and experiences, thus expanding your knowledge of the field in general.

- In the same way, talking with guest speakers, viewing films, or visiting relevant community resources as a group will broaden your understanding of the discipline and related careers.

- Project seminars provide a resource you can tap to solve problems encountered in carrying out your project. If you're having trouble working with a particular Resource Person, finding sources of information about your topic, or deciding what kind of product will best communicate your findings, other students and the Package Coordinator can help you analyze alternatives and find a solution.

- Finally, you may discover that some students share your interests and concerns and would like to combine talents and energies into a group project. Working jointly you can sometimes tackle bigger problems and cover more ground.

Using the Package Goals

The goals on the following pages outline some important kinds of learning which should be included in your project. They are meant to stretch your imagination and to help you develop a worthwhile Plan, not to confine your thinking. Minimum requirements for a project are given, so that you and your Learning Coordinator have standards for judging whether your project is roughly equal in amount of work to a class in the subject. These goals and requirements are broadly stated to allow you great freedom in deciding exactly what you will learn, with whom, how you will demonstrate your new knowledge or skills, and who will evaluate your work.

When you have drafted your Project Plan, compare it with the package goals and requirements. You can use the goal checklist to make certain your Plan is complete. If you have trouble understanding the goals or how to use them, ask your Learning Coordinator for help.

Life Science Package Goals

GOAL 1: BASIC SKILLS (Required)

You should practice and improve your basic skills by using at least one method of acquiring and one method of communicating information in the course of your project.

ACQUIRING INFORMATION (Choose one)

- Reading: You should be able to read critically and comprehend newspaper and magazine articles, scientific journals, books, or other materials pertinent to your project.
- Listening: You should be able to listen effectively and critically to speeches, lectures, broadcasts, or other commentaries related to your project.
- Observing: You should be able to acquire and interpret information from slides, films, experiments, specimens, and other materials or events appropriate to your project.

COMMUNICATING INFORMATION (Choose one)

- Writing: You should be able to clearly express in writing ideas and findings from your project.
- Speaking: You should be able to orally express information and ideas related to your project in a manner that effectively communicates with others.
- Innovating: You should be able to communicate ideas or findings using means other than the written or spoken word, for example, through creating photographs or a film, graphic illustrations, or working models.

GOAL 2: PROBLEM-SOLVING (Required)

You should expand your problem-solving skills by designing and conducting experiments, researching a major problem or question facing life scientists today, or thoroughly investigating a living organism in terms of its structure, function and interaction with its environment. To do so, you should use scientific methods including the following:

- Identify a significant problem or question. (Why is it important? Who or what does it affect?)
- Analyze existing information.
- Make your own observations.
- Formulate an hypothesis to be investigated. (An hypothesis is an idea or a question stated in such a way that it can be tested. For example, "Bread mold will grow faster in a dark place than in a brightly-lighted place.")
- Design and carry out an experiment, or seek additional data or observations, to test the hypothesis.
- Organize and evaluate the information obtained.

GOAL 3: CAREER DEVELOPMENT (Choose a or b)

a. You should learn enough about two careers in the field of **life** science to evaluate them in terms of your own interests, values, goals, and abilities. Your research should include the following:

- The roles and functions of an employee.
- The relation of the career to other careers.
- The qualifications and routes for entry.
- The working conditions, rewards and benefits of the career.
- The current and projected demand in the field.
- Union or professional affiliations that are desirable or necessary.
- The effect of the job on one's lifestyle.
- Your own evaluation of the career.

b. You should develop career entrance skills in two of the following areas:

- Obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements.
- Preparing letters of inquiry, applications and resumés for employment or school entry.
- Preparing for and performing effectively in employment or other admissions interviews.
- Acquiring job-entry skills and experience in a chosen career field.

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Life Science Package Goals (continued)

Through a life science project, you can choose to increase your knowledge of concepts and principles in the field (Goal 4), your ability to use specific techniques (Goal 5), or you can learn both principles and techniques by selecting some elements from each goal for a total of five. If you desire laboratory science credit for your project, you must include five elements from Goal 4 and five elements from Goal 5 (for a total of ten).

GOAL 4: LIFE SCIENCE INQUIRY (Choose five)

Through your study and research, you should learn about and show you can use at least five of the concepts, principles, and relationships listed below.

- What are the characteristics of life? What is essential to life? How do you decide when a living thing has died?
- What is the relationship between chemical structure and life? What chemicals (DNA and RNA, for example) occur naturally in life forms and in what amounts? What is their function?
- What is the law of conservation of energy? How does it affect living things?
- What is the biological classification system? Why is it used? How is it used? What kinds of information is it based on?
- What is a plant? What characteristics do all plants have in common? What distinguishes plants from animals? What are some of the different kinds of plants? How do they differ?
- What are plant life functions? How do plants live and grow? How do they obtain, use, and process food? How do they reproduce? What is the relationship between structure and function in plants?
- What is an animal? What characteristics do all animals have in common? What are some of the different kinds of animals? How do they differ?
- What are animal life functions? How do animals live and grow? How do they obtain food? How do their bodies use and process food? How do animals reproduce? What are the differences between the life processes of insects, fish, and mammals?
- What group structures exist among plants or animals? What are their purposes? What is a population? What is a community? How might the group affect an individual? How might an individual affect the group? What is a symbiotic relationship?
- What is an ecosystem? What are the characteristics of a healthy ecosystem? How does an ecosystem function? What is the relationship between living and nonliving things in an ecosystem?
- What is pollution? How does it affect ecosystems? How does it affect humans? What causes pollution? Can pollution be controlled? How?
- What kinds of things make up an environment? What is the importance of environment to life? What is the difference between environment and habitat? How do organisms adapt and acclimatize themselves to their environment? What is the relationship between environment and heredity? Between environment and behavior?
- What is heredity? What is the relationship between natural selection, mutation, and heredity? How are traits inherited? How and to what extent does heredity affect the life of an organism? What effect does heredity have on behavior?
- What are some theories of evolution? How do they differ? How were they developed? How has the relatively new science of genetics influenced these theories of evolution? How does environment affect the evolution of a species?
- What are the characteristics of human physiology? What is the relationship between human structure and function? What are some similarities between human and anthropoid physiology? What are the differences between male and female physiology?
- What factors influence animal behavior? How is behavior described? How do environment and heredity affect behavior? What are some causes of aggressive and submissive behavior?
- Other (specify).

Life Science Package Goals (continued)

GOAL 5: LIFE SCIENCE TECHNIQUES (Choose five)

You should be able to identify, understand, and use at least five of the specialized skills and techniques of an area of life science that interests you. Working with your resources and Learning Coordinator, decide what techniques and skills are needed in the career or discipline you are investigating and state exactly which ones you want to acquire.

- Dissect plants or animals, and identify the parts and their function.
- Set up and safely use standard laboratory equipment such as microscopes, filtration equipment, growth stimulators and media, and calipers and other measuring devices.
- Set up and use field equipment such as cameras, tape recorders, lights, and blinds that successfully camouflage your presence.
- Collect and classify plant or animal specimens.
- Use basic statistical methods to interpret data collected.
- Understand and use the metric system of measurement.
- Perform necessary mathematical computations.
- Safely culture single species of microorganisms.
- Breed or propagate plants or animals.
- Systematically observe and record animal behavior.
- Conduct environmental field studies.
- Collect and preserve specimens (plants, insects, etc.).
- Draw the observed form and anatomical structure of plants, animals, or microorganisms.
- Properly and safely care for laboratory animals and specimens (providing the proper environment, food, etc.).
- Other (specify).

Obviously, it could take years to become expert in some of the above. If you wish to specialize and earn credit in a particular skill area, such as statistics, you will be expected to meet the performance standards for that subject generally employed in your school or district or demonstrate entry-level job skills.

Experience-Based Career Education	LIFE SCIENCE PACKAGE GOAL CHECKLIST
STUDENT'S NAME	DATE
PROJECT TITLE	

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* [ ] reading [ ] listening [ ] observing *Communicating Information* [ ] writing [ ] speaking [ ] innovating
2. PROBLEM-SOLVING	*All elements*	[ ] identify problem or question [ ] analyze existing information [ ] make your own observations [ ] formulate an hypothesis [ ] test hypothesis [ ] organize and evaluate information
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	[ ] a. investigate two careers in terms of: [ ] roles and function of employee [ ] relation of career to other careers [ ] qualifications for entry [ ] working conditions, rewards, benefits [ ] current and projected demand [ ] union or professional affiliations [ ] effects of job on lifestyle [ ] your own evaluation of the career [ ] b. develop career entrance skills in two of the following areas: [ ] obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements [ ] preparing letters of inquiry, applications and resumés [ ] preparing for and performing in interviews [ ] acquiring job-entry skills and career-related experience

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LIFE SCIENCE PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from either Goal 4 or Goal 5, or you can combine elements from each as long as you select five altogether. For laboratory science credit, you must select five from Goal 4 and Goal 5 (for a total of ten).

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. LIFE SCIENCE INQUIRY	*Choose five elements*	☐ characteristics of life ☐ chemical structure of life ☐ law of conservation of energy ☐ classification system ☐ plants ☐ plant life functions ☐ animals ☐ animal life functions ☐ group structures ☐ ecosystem ☐ pollution ☐ environment ☐ heredity ☐ theories of evolution ☐ human physiology ☐ animal behavior ☐ other (specify) ____________________ ____________________
5. LIFE SCIENCE TECHNIQUES	*Choose five elements*	☐ dissect plants or animals ☐ set up and safely use standard laboratory equipment ☐ set up and use field equipment ☐ collect and classify specimens ☐ use statistical methods ☐ understand and use the metric system ☐ perform mathematical computations ☐ safely culture microorganisms ☐ breed plants or animals ☐ observe and record animal behavior ☐ conduct environmental field studies ☐ collect and preserve specimens ☐ make drawings of observations ☐ properly care for laboratory animals and specimens ☐ other (specify) ____________________ ____________________

Course Equivalencies

One of the things you should consider when you plan your project is the kind of credit you need to graduate. Depending on the focus of your study within the broad field of life science, you may earn credit in the subject areas listed below.

Agricultural Science
Anatomy
Biology
Botany
Ecology
Environmental Science
Horticulture
Life Science
Physiology
Science
Zoology

Your Learning Coordinator will help you decide how much and what kind of credit you will earn when you complete your project. Your LC will also help you, if necessary, develop or expand your Project Plan to earn the kind of credit you desire.

NOTE: If you want 5 credits of a laboratory science (college preparatory course), you need to choose five elements from Goal 4 and five elements from Goal 5 for a total of ten. See the Life Science Package Goals on pages 15-17.

Sample Projects

What does a good Project Plan look like? The samples on the following pages show projects, each worth 5 or 10 credits, focusing on different topics, issues, and careers. Browse through them for ideas. Look at them when planning your own project to see how to write goals and indicators. Use them to trigger ideas of your own, and as concrete examples of the kinds of things you can do with the resources available. By changing it to suit your interests, you can even take one of the sample projects and make it your own.

Sample Project 1

Botany

What are some of the ways plants and humans interact? How do they help each other? How can they harm each other? Answering these questions in detail is the purpose of this project. To do this project, you would need to:

- Begin reading The Study of Plant Communities by H.J. Oshing.
- Visit an ecology center to find out what plants are native to the area. What kinds of plants are no longer found in your community? Why? Ask for help in planning your project.
- Visit a botanical laboratory or an allergy clinic to acquire information about allergies. What are they? How are they caused? What local plants cause allergies? Ask for help in planning your study of allergies.
- Read The Environmental Handbook and A Guide to the Study of Environmental Pollution. Research the kind and amount of pollution found in your community. How much pollution existed ten years ago? How much exists today?
- Conduct field studies in areas where large numbers of allergy-causing plants can be found. (Do not plan to do this if you are allergy-prone.) Refer to The Study of Plant Communities for help in conducting your research. What kinds of plants cause them? Collect species for dissection and study. Collect specimens of other plants harmful to humans that are native to your area.
- Visit areas where pollution is the most severe. Collect plant specimens from those areas. Conduct an ecological study of one area.
- Frequently consult with your resources about how your project is progressing and the data you are collecting.

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect your interests and available resources, or write new ones to guide and document activities.

Experience-Based Career Education

PROJECT SKETCH

Use this form to plan your resource Orientations. Obtain your Learning Coordinator's approval before visiting a resource.

STUDENT Lisa Chung LC Jim Connors DATE 2/1/75

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

plants and pollution

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. What kinds of plants live in my community?
2. How polluted is it?
3. What is pollution?
4. What are some of the causes of pollution?
5. What is an allergy?
6. What causes allergies?
7.
8.

III. WHAT RESOURCES WILL YOU USE?

[✓ RP]/RO/CR *(Circle one)* Dr. Jason Gordon Phone 634-0678
Address Western Biologicals, 2186 Harbor Drive

[✓ RP]/RO/CR *(Circle one)* Tom Gaffney Phone 483-8668
Address Sanchez Regional Park, 1000 Scenic Drive

RP/RO/CR *(Circle one)* Phone
Address

OTHER RESOURCES *(Give name of person or title and author of books, articles, etc.)*

Biological Science: An Ecological Approach, BSCS green version, 3rd edition

I HAVE READ THE RESOURCE GUIDE(S) [X] Yes [ ] No *(If not, give reasons)*

APPROVED BY LC Jim Connors DATE 2/2/75

LC FOLLOW-UP	[X] The student has decided to do a project in this interest area. [ ] The student has decided not to pursue this interest further because:

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

Distribution: Original (White) - LC; Yellow - Student; Pink - Resource Analyst

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Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT Lisa Chung PROJECT NO. 1 PACKAGE Life Science

LC APPROVAL Jim Connors DATE 2/15/75 DATE PROJECT STARTED 2/1/75

TECHNICAL ADVISOR(S) *(If any)*

I. PROJECT DESCRIPTION

A. *Title* Botany

PLANNED CREDITS		EBCE Credits
Subject Area(s)	1. Botany (Lab Science)	5
	2.	
	3.	

B. Theme (Please give a brief description of your project)

Through this project I want to learn about the effects of pollution on plant life in my community and how plants are harmful to people. I also want to learn laboratory and field study techniques.

C. *Questions to be Investigated:*

What are some plants that are harmful to people? How are they harmful? What is an allergy? How do plants cause allergies? How serious is an allergy? Can allergies be cured? Are humans harmful to plants? Do the same kinds of plants live here now that did ten years ago? Twenty? Fifty? What kinds of plants do live here? How has the plant population changed? Why? What would happen if all the plants died? What needs to be done so that people can live in harmony with the plants in the city and in the surrounding areas? What are some of the different careers that are concerned with this problem?

FOR LEARNING COORDINATOR USE ONLY

Mid-Term Review	*Initials*	*Date*	*End-of-Term Review*	*Initials*	*Date*

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STUDENT PROJECT PLAN	Page 2 of 5

II. IDENTIFICATION OF RPs, ROs, & CRs

A. Completed Visits (Identify resources already visited for Orientation)

Resource Name	Address	Phone	RP	RO	CR	Hours Spent
Dr. Jason Gordon	Western Biologicals 2186 Harbor Drive	634-0678	X			4
Tom Gaffney	Sanchez Regional Park 1000 Scenic Drive	483-8668	X			3

B. Planned Visits (Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)

Resource Name	Address	Phone	Acty *Level			RP	RO	CR	Est. Hours
			O	E	I				
Dr. Jason Gordon	Western Biologicals 2186 Harbor Drive	634-0678		X		X			15
Tom Gaffney	Sanchez Regional Park 1000 Scenic Drive	483-8668		X		X			30
Sam Campbell	Ecology Center 1411 East 12th Street	485-6108		X		X			20

* O = Orientation; E = Exploration; I = Investigation

C. Related Reading/Research (Give Titles)

The Study of Plant Communities, H.J. Oshing

A Guide to the Study of Environmental Pollution, edited by William A. Andrews

The Environmental Handbook, Garrett DeBell

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS (See Resource Guides. Some sites require special insurance, health certificates, etc.)

A. Prequisites

B. Materials or Equipment appropriate clothing for field study trips; specimen collecting bottles and equipment.

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits 72 Hrs. Product Production 20 Hrs.

B. Reading 20 Hrs. Other (specify) 15 Hrs. specimen collection, field studies

TOTAL HOURS 127

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT 5/11/75

PLANNED PROJECT COMPLETION DATE 6/10/75

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 3 of 5

Student Lisa Chung LC Jim Connors Project Title Botany

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 1: Learn which plants are harmful to people and how they are harmful.					
a. I will identify and describe, in the Life Science Project Seminar, the plants native to this area (within a 25-mile radius) that are harmful to human beings.	3/30	Tom Gaffney			
b. I will safely and properly collect, preserve, and label specimens of ten local plants that most often cause harm and ten local plants that are the most dangerous to people.	3/30	Tom Gaffney			
c. I will note on each label how the plant affects a person and under what circumstances (by touching it, eating it, etc.). If the plant is poisonous, I will note the antidote.	3/30	Tom Gaffney			
GOAL 2: Understand allergies: what causes them, how they affect people, and some possible cures.					
a. I will write a report that:					
• identifies local allergies commonly diagnosed;	5/4	Dr. Gordon			
• identifies the plants causing the allergies and describes their habitat;	5/4	Dr. Gordon			
• discusses how these allergies affect the average person; and	5/4	Dr. Gordon			

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FWL-EBCE Rev.1 76

STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Student Lisa Chung LC Jim Connors Project Title - Botany

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
• describes some of the steps that can be taken to relieve the allergy.	5/4	Dr. Gordon			
b. In my report I will include pictures I have drawn of the structure of ten local plants that cause allergies. The drawings will be based on my dissections of specimens of these plants. Each part of the plant will be labeled and I will include both the common and scientific name of the plant on the drawings.	5/4	Tom Gaffney			
GOAL 3: Analyze the effects of pollution on plants in this area (within a 25-mile radius).					
a. On a chart I will list the 15 kinds of plants that were most abundant here 50 years ago, 20 years ago, and 10 years ago. I will also list 15 kinds of plants that are now most abundant. I will include information about the plants' locations and habitats and how they have changed.	4/15	Sam Campbell			
b. I will be able to recognize five common pollutants found on the surface of plant leaves through microscopic analysis.	4/30	Tom Gaffney			
c. I will be able to distinguish healthy from unhealthy plant tissue through microscopic analysis.	4/30	Tom Gaffney			
(continued on next page)					

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 5 of 5

Student Lisa Chung **LC** Jim Connors **Project Title** Botany

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
d. I will analyze the relationship between the growth of my community and the disappearance of plant species to determine some of the effects development had on local plant life.	5/1	Sam Campbell			
e. I will summarize local government reports on the kind and level of pollutants in or near those locations where plants have disappeared.	5/1	Sam Campbell			
f. I will summarize my findings in the Life Science Project Seminar and lead a discussion about some alternative methods of stopping or preventing any pollution that may be occurring.	5/25	Package Coordinator			
GOAL 4: Learn about entry requirements and opportunities in careers that use botany.					
a. I will write letters to the State and U.S. Departments of Agriculture for information about employment opportunities with the government as a plant pathologist and in related careers.	4/1	Jim Connors			
b. I will write letters to the State University and to Michaels College of Agriculture for information about their botany and agriculture programs, and for applications.	4/1	Jim Connors			
c. I will report my findings orally in my advisory group and discuss my personal evaluation of the careers.	6/6	Jim Connors			

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FWL-EBCE Rev. 1 76

Experience-Based Career Education	LIFE SCIENCE PACKAGE GOAL CHECKLIST

STUDENT'S NAME *Lisa Chung* DATE *2/15/75*

PROJECT TITLE *Botany*

GOAL	GOAL REQUIREMENTS.	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* [X] reading [ ] listening [X] observing *Communicating Information* [X] writing [X] speaking [ ] innovating
2. PROBLEM - SOLVING	*All elements*	[X] identify problem or question [X] analyze existing information [X] make your own observations [X] formulate an hypothesis [X] test hypothesis [X] organize and evaluate information
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	[ ] a. investigate two careers in terms of: [ ] roles and function of employee [ ] relation of career to other careers [ ] qualifications for entry [ ] working conditions, rewards, benefits [ ] current and projected demand [ ] union or professional affiliations [ ] effects of job on lifestyle [ ] your own evaluation of the career [X] b. develop career entrance skills in two of the following areas: [X] obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements [X] preparing letters of inquiry, applications and resumés [ ] preparing for and performing in interviews [ ] acquiring job-entry skills and career-related experience

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LIFE SCIENCE PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from either Goal 4 or Goal 5, or you can combine elements from each as long as you select five altogether. For laboratory science credit, you must select five from Goal 4 and Goal 5 (for a total of ten).

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. LIFE SCIENCE INQUIRY	*Choose five elements*	☐ characteristics of life ☐ chemical structure of life ☐ law of conservation of energy ☐ classification system ☐ plants ☒ plant life functions ☐ animals ☐ animal life functions ☐ group structures ☒ ecosystem ☒ pollution ☒ environment ☐ heredity ☐ theories of evolution ☐ human physiology ☐ animal behavior ☒ other (specify) plant pathology as it relates to (a) allergies and (b) healthy and unhealthy tissue
5. LIFE SCIENCE TECHNIQUES	*Choose five elements*	☒ dissect plants or animals ☒ set up and safely use standard laboratory equipment ☒ set up and use field equipment ☒ collect and classify specimens ☐ use statistical methods ☐ understand and use the metric system ☐ perform mathematical computations ☐ safely culture microorganisms ☐ breed plants or animals ☐ observe and record animal behavior ☒ conduct environmental field studies ☒ collect and preserve specimens ☒ make drawings of observations ☐ properly care for laboratory animals and specimens ☐ other (specify) ________

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Sample Project 2
Zoological Gardens

What is the purpose of zoos? Should zoos exist? If not, what are the alternatives? If you would like to answer these and related questions, this project can help you.

- Visit at least one local zoo. Assist an attendant regularly so that you can learn what is involved in the care of the animals. Select one type of animal (the monkeys, the bears, the lions, etc.) to observe closely. Observe the animals every week for several months. How do the animals respond to the attendant? How do they relate to each other? Is one among them the leader? What social behavior patterns do they exhibit? How do they appear to react to zoo visitors?
- Research the history and development of zoos at the library. How did zoos originate? Why? What alternatives to zoos are now being developed?
- Interview zoo staff members. What are the most serious problems they face? What are possible solutions to those problems?
- Write zoo directors in cities here and in other countries. What problems do they face? What solutions have they tried? How successful have they been?
- Write for information from the directors of one or more game preserves in Africa. What are the differences and similarities between game preserves and zoos?
- Find out if any studies have been done comparing animal behavior in captivity with behavior on a preserve and in the wild. If so, what are their findings?

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect your interests and available resources, or write new ones to guide and document your activities.

Experience-Based Career Education

PROJECT SKETCH

Use this form to plan your resource Orientations. Obtain your Learning Coordinator's approval before visiting a resource.

STUDENT Cheryl Clark LC Alice Garcia DATE 3/1/75

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

zoos

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. What is the purpose of a zoo?
2. How did zoos begin?
3. How does being caged affect the animals in a zoo?
4. Are there any other ways to keep animals?
5. What are they?
6.
7.
8.

III. WHAT RESOURCES WILL YOU USE?

RP/[✓ RO]/CR *(Circle one)* City Parks & Recreation Department Phone 275-3579
Address 1520 Shore Avenue

[✓ RP]/RO/CR *(Circle one)* Maria de la Cruz Phone 685-7420
Address City Zoo, 777 Lincoln Road

RP/RO/[✓ CR] *(Circle one)* Municipal Public Library Phone 732-1222
Address 1512 - 8th Street

OTHER RESOURCES *(Give name of person or title and author of books, articles, etc.)*

I HAVE READ THE RESOURCE GUIDE(S) [X]Yes [ ]No (If not, give reasons)

APPROVED BY LC Alice Garcia DATE 3/1/75

LC FOLLOW-UP	[X] The student has decided to do a project in this interest area. [ ] The student has decided not to pursue this interest further because:

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

Distribution: Original (White) - LC; Yellow - Student; Pink - Resource Analyst

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Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT Cheryl Clark PROJECT NO. 2 PACKAGE Life Science

LC APPROVAL Alice Garcia DATE 3/8/75 DATE PROJECT STARTED 3/1/75

TECHNICAL ADVISOR(S) *(If any)* Maria de la Cruz

I. PROJECT DESCRIPTION

A. *Title* Zoological Gardens

PLANNED CREDITS			EBCE Credits
Subject Area(s)	1.	Biology	5
	2.		
	3.		

B. *Theme* *(Please give a brief description of your project)* The purpose of this project is to learn about the history and purpose of zoos and discover some of the effects zoos have on the animals kept there.

C. *Questions to be Investigated:*

Where was the first zoo established, who started it, and what animals were kept there? What was the purpose of this zoo? How have zoos changed since then? What is the purpose of a zoo now? Do different zoos exist for different purposes? Should zoos exist? Why? What kind of life does a zoo animal lead? How does captivity affect an animal's behavior? Are there alternatives to zoos? What are they? Are zoos very expensive to maintain? Why?

FOR LEARNING COORDINATOR USE ONLY

Mid-Term Review	Initials	Date	End-of-Term Review	Initials	Date

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STUDENT PROJECT PLAN	*Page 2 of 4*

II. IDENTIFICATION OF RPs, ROs, & CRs

A. *Completed Visits* *(Identify resources already visited for Orientation)*

Resource Name	*Address*	*Phone*	*RP*	*RO*	*CR*	*Hours Spent*
City Parks and Recreation Department	1520 Shore Avenue	275-3579		X		4
Maria de la Cruz	City Zoo 777 Lincoln Road	685-7420	X			2
Municipal Library	1512 - 8th Street	732-1222			X	3

B. *Planned Visits* *(Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)*

Resource Name	*Address*	*Phone*	*Acty *Level*			*RP*	*RO*	*CR*	*Est. Hours*
			O	*E*	*I*				
Maria de la Cruz	City Zoo 777 Lincoln Road	685-7420			X	X			25
Municipal Library	1512 - 8th Street	732-1222	X					X	2
Rick Colton	Lakeview Science Center 850 Shore Avenue	275-3860	X			X			5

** O = Orientation; E = Exploration; I = Investigation*

C. *Related Reading/Research* *(Give Titles)*

The Territorial Imperative by Robert Ardrey

Animal Behavior by J.P. Scott

Zoos of Today by James R. Johnson

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS *(See Resource Guides. Some sites require special insurance, health certificates, etc.)*

A. *Prequisites* ____________

B. *Materials or Equipment* ____________

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. *Site Visits* 41 *Hrs.* *Product Production* 15 *Hrs.*

B. *Reading* 15 *Hrs.* *Other (specify)* 25 *Hrs.*
observation of animals at the zoo

TOTAL HOURS 96

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT 5/10/75

PLANNED PROJECT COMPLETION DATE 6/15/75

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 3 of 4

Student Cheryl Clark LC Alice Garcia Project Title Zoological Gardens

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 1: Know the history of zoos and understand their purposes.					
a. Summarize, in a written report, information received from the directors of the San Diego, Berlin and London zoos and from the director of the Gold Coast Game Preserve in Africa, including: • the physical appearance of the zoos or game preserve; • their goals and purposes; • problems they face in caring for the animals and some solutions they are trying; and • the education and training needed for their careers.	4/30	Alice Garcia			
b. Include a section in this report, using my own words, on the history of zoos: how they began, when, where, and why.	4/30	Alice Garcia			
GOAL 2: Understand how captivity may affect some animals.					
a. Evaluate at least one study comparing animal behavior in captivity with animal behavior in the wild.	6/1	Maria de la Cruz			
(continued on next page)					

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 4 of 4

Student Cheryl Clark LC Alice Garcia Project Title Zoological Gardens

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
b. Organize and evaluate data collected through weekly observations of the rhesus monkey at the City Zoo using a form I develop to record my observations. Code the data and use simple statistical methods to analyze my data, such as computing frequencies and determining means and medians.	6/1	Maria de la Cruz			
c. Present my findings orally to the members of the Life Science Project Seminar.	6/1	Package Coordinator			
GOAL 3: Analyze the careers of zoo director and park naturalist in relation to my interests and abilities.					
a. Complete a Job Information Questionnaire on each career.	5/25	Alice Garcia			
b. Discuss these careers in relation to my goals and interests in my advisory group.	5/15	Alice Garcia			
GOAL 4: Understand the problems of keeping animals in zoos and propose at least one innovation to make a zoo animal's life more like that of his counterpart in the wild.					
a. Same as Indicator a for Goal 1.					
b. Same as Indicators a, b, and c for Goal 2.					
c. I will summarize my findings and describe my proposal to the members of the Life Science Project Seminar.	6/1	Package Coordinator			

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Experience-Based Career Education

LIFE SCIENCE PACKAGE GOAL CHECKLIST

STUDENT'S NAME Cheryl Clark DATE 3/8/75

PROJECT TITLE Zoological Gardens

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* [X] reading [ ] listening [X] observing *Communicating Information* [X] writing [X] speaking [ ] innovating
2. PROBLEM-SOLVING	*All elements*	[X] identify problem or question [X] analyze existing information [X] make your own observations [X] formulate an hypothesis [X] test hypothesis [X] organize and evaluate information
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	[X] a. investigate two careers in terms of: [X] roles and function of employee [X] relation of career to other careers [X] qualifications for entry [X] working conditions, rewards, benefits [X] current and projected demand [X] union or professional affiliations [X] effects of job on lifestyle [X] your own evaluation of the career [ ] b. develop career entrance skills in two of the following areas: [ ] obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements [ ] preparing letters of inquiry, applications and resumés [ ] preparing for and performing in interviews [ ] acquiring job-entry skills and career-related experience

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LIFE SCIENCE PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from either Goal 4 or Goal 5, or you can combine elements from each as long as you select five altogether. For laboratory science credit, you must select five from Goal 4 and Goal 5 (for a total of ten).

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. LIFE SCIENCE INQUIRY	*Choose five elements*	☐ characteristics of life ☐ chemical structure of life ☐ law of conservation of energy ☐ classification system ☐ plants ☐ plant life functions ☐ animals ☐ animal life functions ☒ group structures ☐ ecosystem ☐ pollution ☒ environment ☐ heredity ☐ theories of evolution ☐ human physiology ☒ animal behavior ☐ other (specify) ______________
5. LIFE SCIENCE TECHNIQUES	*Choose five elements*	☐ dissect plants or animals ☐ set up and safely use standard laboratory equipment ☐ set up and use field equipment ☐ collect and classify specimens ☒ use statistical methods ☐ understand and use the metric system ☐ perform mathematical computations ☐ safely culture microorganisms ☐ breed plants or animals ☒ observe and record animal behavior ☐ conduct environmental field studies ☐ collect and preserve specimens ☐ make drawings of observations ☐ properly care for laboratory animals and specimens ☐ other (specify) ______________

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Sample Project 3

Birds

With this project you can learn about birds: their relationship to the other animals, how and where they live, what they eat, and how they reproduce. It should also help you learn about the kinds of birds that live in your community.

- Visit the local bird-watcher's society. Discuss your project ideas and ask for some reading suggestions.
- Visit the museum of natural science. Study the bird exhibits and browse through the museum's books and pamphlets.
- Visit the aviary at the zoo. Observe the birds there. What species do you recognize?
- Make several trips to the local park with binoculars and camera to observe and photograph birds. If possible, space your trips so you can make observations in the fall, the winter, and the spring.
- Consult with your resources throughout the course of your project for advice about how to observe animals in the field and use of equipment.

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect your interests and available resources, or write new ones to guide and document your activities.

877

Experience-Based Career Education

PROJECT SKETCH

Use this form to plan your resource Orientations. Obtain your Learning Coordinator's approval before visiting a resource.

STUDENT Fred Smith LC Ted Grant DATE 10/3/75

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

birds

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. What kinds of birds live around here?
2. How long do birds live?
3. What do different kinds of birds eat?
4. Do birds mate for life?
5. What kinds of nests do birds build?
6. Who feeds the young?
7.
8.

III. WHAT RESOURCES WILL YOU USE?

[✓ RP]/RO/CR *(Circle one)* Jack Grossman Phone 456-7890
Address Bird Protection Society, 431 Market Street

[✓ RP]/RO/CR *(Circle one)* Bob Lorenzo Phone 456-5430
Address City Museum, 663 Olive Drive

RP/RO/CR *(Circle one)* Phone
Address

OTHER RESOURCES *(Give name of person or title and author of books, articles, etc.)*

I HAVE READ THE RESOURCE GUIDE(S) [X] Yes [ ] No (If not, give reasons)

APPROVED BY LC Ted Grant DATE 10/3/75

LC FOLLOW-UP
[X] The student has decided to do a project in this interest area.
[ ] The student has decided not to pursue this interest further because:

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

Distribution: Original (White) - LC; Yellow - Student; Pink - Resource Analyst

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Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT *Fred Smith* PROJECT NO. *3* PACKAGE *Life Science*

LC APPROVAL *T. Grant* DATE *10/25/75* DATE PROJECT STARTED *10/3/75*

TECHNICAL ADVISOR(S) *(If any)* *Bob Lorenzo*

I. PROJECT DESCRIPTION

A. *Title* *Birds*

PLANNED CREDITS		EBCE Credits
Subject Area(s)	1. *Biology*	*5*
	2.	
	3.	

B. *Theme* *(Please give a brief description of your project)* *In this project I will investigate birds as a class--how they live, grow, reproduce, and die--and study some of the birds that live in my community. I want to learn how to observe bird behavior, and how to recognize local species.*

C. *Questions to be Investigated:*

What distinguishes birds from other animals?
Where can birds live?
How do birds get their food and what do they eat?
How do birds reproduce? Do bird songs mean anything? What?
How many kinds of birds live in this community? What are their species?
Do they live here all the time? If not, where else do they live and when do they live there?
What is the proper way to observe birds in the field?

FOR LEARNING COORDINATOR USE ONLY

Mid-Term Review	*Initials*	*Date*	*End-of-Term Review*	*Initials*	*Date*

FWL-EBCE Rev.1/76

STUDENT PROJECT PLAN — Page 2 of 5

II. IDENTIFICATION OF RPs, ROs, & CRs

A. Completed Visits (Identify resources already visited for Orientation)

Resource Name	Address	Phone	RP	RO	CR	Hours Spent
Jack Grossman	Bird Protection Society 431 Market Street	456-7890	X			2
Bob Lorenzo	City Museum 663 Olive Drive	456-5430	X			3

B. Planned Visits (Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)

Resource Name	Address	Phone	Acty *Level			RP	RO	CR	Est. Hours
			O	E	I				
Jack Grossman	Bird Protection Society 431 Market Street	456-7890	X			X			5
Bob Lorenzo	City Museum 663 Olive Drive	456-5430		X		X			22
Tom Gaffney	Sanchez Regional Park 1000 Scenic Drive	483-8668		X		X			15

* O = Orientation; E = Exploration; I = Investigation

C. Related Reading/Research (Give Titles)

Biological Science: An Ecological Approach, BSCS green version, 3rd edition

Animal Behavior, J.P. Scott

Field Guide to Western Birds, Roger Tory Peterson

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS (See Resource Guides. Some sites require special insurance, health certificates, etc.)

A. Prequisites

B. Materials or Equipment binoculars, camera, tripod, and film (It would be nice to have this equipment, but it is not required.)

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits 47 Hrs. Product Production 15 Hrs.

B. Reading 10 Hrs. Other (specify) 20 Hrs. field studies at the park and zoo

TOTAL HOURS 92

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT 5/6/76

PLANNED PROJECT COMPLETION DATE 6/10/76

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION

(See instructions on reverse side)

Page 3 of 5

Student Fred Smith **LC** Ted Grant **Project Title** Birds

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 1: Know the common characteristics and functions of the class of birds.					
a. I will put together a short pamphlet, suitable for use by 5th-grade students who visit the City Museum's natural history section, which describes the characteristics of the class of birds, briefly discusses some of their habitats, and includes a drawing of a bird with its parts properly labeled.	1/10	Bob Lorenzo			
b. I will lead a portion of a nature tour in Sanchez Park for 3rd-grade students in which I explain the common characteristics of birds and describe those that live in the park, including: • their relationship to other animals in their environment; • their physical appearance and the appearance of their eggs; • where and how they build their nests; • when they live there, where they migrate, and why; • what they eat and how you can tell; and • the kinds of sounds they make and when, and why they make them. (continued on next page)	4/4	Tom Gaffney			

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION

(See instructions on reverse side)

Page 4 of 5

Student Fred Smith **LC** Ted Grant **Project Title** Birds

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 2: Understand the lives and habitats of five of the most common bird species native to this area.					
a. Based on my observations, I will compose a photographic essay showing the kind of nest built, the habitat, food, physical appearance, etc., of these birds. I will include captions to explain my photographs.	5/18	Jack Grossman			
b. Same as Indicator b for Goal 1 above.					
GOAL 3: Understand the requirements, benefits, and advantages of a career as a natural science museum curator and as a naturalist.					
a. Complete a Career Orientation Guide on each of these careers and discuss what I think of them in my advisory group.	6/10	Ted Grant			
GOAL 4: Learn the skills and techniques necessary for getting information by directly observing birds.					
a. Compare what I was able to learn through my observations with information on the same five species at the Bird Protection Society.	5/18	Jack Grossman			
b. Discuss my procedures with Jack Grossman and evaluate how effective they were.	5/18	Jack Grossman			
(continued on next page)					

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION

(See instructions on reverse side)

Page 5 of 5

Student Fred Smith LC Ted Grant Project Title Birds

	For Indicators		For Evaluator's Use		
Goals and Indicators	Due Date	Evaluator	Date	Initials & Rating	Comments
c. Use a field guide in identifying birds.	12/20	Jack Grossman			
d. Recognize ten species by: • flight pattern; • body size and markings; and • song.	6/5	Jack Grossman			

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FWL-EBCE Rev.1/76

Experience-Based Career Education		LIFE SCIENCE PACKAGE GOAL CHECKLIST
STUDENT'S NAME	Fred Smith	DATE 10/25/75
PROJECT TITLE	Birds	
GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* [X] reading [ ] listening [X] observing *Communicating Information* [ ] writing [X] speaking [X] innovating
2. PROBLEM-SOLVING	*All elements*	[X] identify problem or question [X] analyze existing information [X] make your own observations [X] formulate an hypothesis [X] test hypothesis [X] organize and evaluate information
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	[X] a. investigate two careers in terms of: [X] roles and function of employee [X] relation of career to other careers [X] qualifications for entry [X] working conditions, rewards, benefits [X] current and projected demand [X] union or professional affiliations [X] effects of job on lifestyle [X] your own evaluation of the career [ ] b. develop career entrance skills in two of the following areas: [ ] obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements [ ] preparing letters of inquiry, applications and resumés [ ] preparing for and performing in interviews [ ] acquiring job-entry skills and career-related experience

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LIFE SCIENCE PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from either Goal 4 or Goal 5, or you can combine elements from each as long as you select five altogether. For laboratory science credit, you must select five from Goal 4 and Goal 5 (for a total of ten).

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. LIFE SCIENCE INQUIRY	*Choose five elements*	☐ characteristics of life ☐ chemical structure of life ☐ law of conservation of energy ☐ classification system ☐ plants ☐ plant life functions ☐ animals ☐ animal life functions ☐ group structures ☐ ecosystem ☐ pollution ☒ environment ☐ heredity ☐ theories of evolution ☐ human physiology ☒ animal behavior ☒ other (specify) bird life functions
5. LIFE SCIENCE TECHNIQUES	*Choose five elements*	☐ dissect plants or animals ☐ set up and safely use standard laboratory equipment ☒ set up and use field equipment ☐ collect and classify specimens ☐ use statistical methods ☐ understand and use the metric system ☐ perform mathematical computations ☐ safely culture microorganisms ☐ breed plants or animals ☒ observe and record animal behavior ☐ conduct environmental field studies ☐ collect and preserve specimens ☐ make drawings of observations ☐ properly care for laboratory animals and specimens ☒ other (specify) identify species in the field

FWL-EBCE Rev.1/76

Resources

Resource Persons

(Effective August 1975)

Gary Auerbach	Plant Chemist at the Municipal Water Pollution Control Plant. Learn to take and analyze water samples for pollutants. Develop laboratory analysis skills.
Sam Campbell	Information Coordinator of the Ecology Center. Discuss ecological issues and related careers. Research ecological issues, assist in the library, answer phones, help prepare the newsletter, and attend group meetings.
Rick Colton	A naturalist at Lakeview Natural Science Center, part of the City Parks and Recreation Department. Observe him at work, learn to assist with clerical tasks, help rebuild nature trails, and take care of the animals in the mini-zoo.
Maria de la Cruz	Chief of the Operations Section of the City Zoo. Work with the zookeepers. Do research in the zoo library. Observe animal behavior in captivity and discuss zoo problems and operations. Learn how to handle and care for zoo animals.
Tom Gaffney	A naturalist at Sanchez Regional Park. Assist in the nursery; help teach young children; discuss issues and problems related to ecology, botany, natural history, or park management; learn how to help maintain the park and park trails; and learn about the plants and animals which live there.
Dr. Jason Gordon	Owner and Director of Western Biologicals. Discuss immunology, the medical profession, medical research, and business management. Learn about allergies and how to treat them. Learn how to collect pollen and prepare allergenic extracts.
Maria Green	Owner and Manager of Maria's Green Thumb, a small plant store. Learn how to raise and care for house plants, including how to treat them for common diseases and pests.
Jack Grossman	Volunteer at the Bird Protection Society. Discuss protection of our natural resources, preservation of wilderness areas, and the role of the Bird Society. Do research, assist with the Hot Line, and help with office tasks.

Dr. Leonard Hammer	Veterinarian at the University Veterinary Clinic. Learn how to help treat the animal patients brought to the clinic, administer inoculations, set broken bones, and perform surgery. Learn microscopic preparation and specimen analysis.
George Hardy	Curator of Special Exhibits and Education at the City Museum. Learn to plan, construct, and install new displays and assist with special programs. Work with the Museum-on-Wheels program.
Beth Hood	Assistant Director of the Lakeview Humane Society. Learn tasks in the Adoption Center and Veterinary Medical Center. Learn the proper care and treatment of the animals and assist in all phases of the Center's work.
Mildred Johnson	In charge of laboratory analyses at Veterinarian's Laboratory. Observe "bench-type" chemistry being performed on animal specimens and learn to analyze specimens yourself.
Larry Kahn	A naturalist at the Lakeview Rotary Science Center, part of the City Parks and Recreation Department. Discuss botany, zoology, forestry, range management, and pet care. Observe him and learn to assist with his duties as a naturalist and with office work.
Laura Keller	A naturalist with the City Parks and Recreation Department. Discuss and learn about proper care of outdoor gardens and maintenance of public park areas.
Dr. Ernest Ling	A physician specializing in podiatric medicine. (Podiatric means "having to do with feet.") Observe office surgery and laboratory methods. Learn X-ray procedures; how to read, complete, and maintain medical records; and assist with patients.
Bob Lorenzo	A curator in the natural history division of the City Museum. Help him design cases for floor exhibits, collect materials for the tape library on animals and their sounds, and discuss biology and life science exhibits.
Beatrice Mahler	Instructor at Lakeview Hospital School of Nursing. Discuss nursing and medicine. (Orientations only)
Sally Miller	A post-doctoral fellow at the State University. She has grants from the Multiple Sclerosis Foundation and the National Cancer Society to do research on these diseases. Advanced biology students can assist her in most phases of her research work. Discuss scientific research, learn research methods and techniques, and learn about cancer and current methods of cancer research.

Fred Morgan	Foreman at the Lakeview Park Nursery, part of the City Parks and Recreation Department. Learn caretaking tasks for the nursery and park plants and grounds, such as watering, weeding, pest control, pruning, picking up trash, and hosing pathways.
Bill Paley	The senior ranger in charge of the Ranger Station operated by the City Parks and Recreation Department. Observe and accompany rangers on patrol. Discuss law enforcement, reforestation, wildlife management, and educational programs. Assist with planning and running educational programs, park maintenance, and patrol work.
Dave Resnick	A naturalist in the Sanchez Regional Park system who has his headquarters at Sutter Park. Discuss park maintenance and educational programs, skin diving, photography, and mycology (the study of mushrooms and other fungi). Conduct park tours, plan and conduct educational programs, or help with park maintenance tasks.
Margaret Tuttle	Director of Instructional Programs at the Marine Ecological Institute. Take a cruise on the Institute's research and teaching vessel, "Bayside." Learn how to use marine measurement devices and navigational maps and charts. Discuss the pros and cons of bay fill and its effects on the ecology of the bay.

Resource Organizations

(Effective August 1975)

Broadmoor Pet Clinic	A veterinary clinic that primarily treats the health problems of small animals. Learn to help make up animal prescriptions, assist in the handling and grooming of animals, admit patients, answer phones, discharge patients, collect fees, assist during surgery, prepare animals for surgery, and other phases of clinic work.
City Parks and Recreation Department	A municipal department that develops programs and maintains recreation facilities designed to accommodate the varied leisure-time interests of city residents. Work with park rangers, naturalists, and park gardeners.
Feminist Health Center	A gynecological clinic devoted to teaching women how to examine themselves, the early signs of pregnancy, and how to care for their bodies and prevent sickness. It also provides free counseling and referral services. Assist in all activities and learn about the anatomy and physiology of women.
Manor Hospital	Only the video training department, Studio Three, is open to you. Observe and discuss the use of videotaping for medical training. Learn about and develop skills in videotaping hospital procedures and tasks for the training program.
Washburn Laboratories	A medical laboratory where doctors and hospitals send specimens for analysis. Develop skills in medical analysis and laboratory procedures. Work with technicians in all phases of analysis from bacteriology to electrophoresis.

Community Resources

(Effective August 1975)

State Department of Public Health	This agency offers insight into a variety of careers in the field of public health and has excellent information on topical issues available to the public.
State University	The Agricultural Tract is a research and teaching center where many exciting projects on the biological control of insects and weeds are being conducted.
	The Earth Sciences Building houses exhibits tracing the evolution of humans and animals, as well as geological and other earth science materials, discoveries, equipment, and information exhibits.
	The Hall of Science is an educational facility that houses exhibits and equipment demonstrating some of the latest scientific discoveries. Films, lectures, and demonstrations are also regularly scheduled.
	Madsen Hall maintains a variety of displays dealing with forestry and the commercial aspects of the lumber industry and provides good information for the public on other facets of natural science.
	The Science Laboratory, a research organization, has received world-wide recognition for the many scientific contributions it has made over the years. Tours, available to the public, enable you to observe some of the current experiments and research being conducted, and the equipment, materials, and laboratories used.

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In addition, the library has the latest editions of Books in Print and other bibliographic and reference materials. The library also subscribes to Scientific American and other weekly and monthly magazines and journals.

THE FAR WEST MODEL

EBCE

Experience-Based Career Education

14. Physical Science

Physical Science Package

Principal Author:
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January 1976

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Table of Contents

Page

INTRODUCTION 1

PROJECT IDEAS 3

CAREERS YOU CAN EXPLORE 5

HOW TO PLAN AND COMPLETE A PROJECT 7

PROJECT SEMINARS 11

USING THE PACKAGE GOALS 13

PHYSICAL SCIENCE PACKAGE GOALS 15

PHYSICAL SCIENCE PACKAGE GOAL CHECKLIST 19

COURSE EQUIVALENCIES 21

SAMPLE PROJECTS 23

- Sample Project 1: Applied Physics 25
- Sample Project 2: Chemistry of the Body 33
- Sample Project 3: Space Science 41

RESOURCES

- Resource Persons 49
- Resource Organizations 51
- Community Resources 53
- Bibliography 55

Introduction

> *Science is an adventure of the whole human race to learn to live in, and perhaps to love, the universe in which they are. To be a part of it is to understand, to understand oneself, to begin to feel that there is a capacity within man far beyond what he felt he had, of an infinite extension of human possibilities.*
>
> -- *I.I. Rabi,*
> *Nobel Laureate in Physics*

We live in dynamically changing times. For most people, the need is less for learning facts than for learning how to acquire and use new information in coping with change and solving problems. Good learning techniques will continue to help you beyond your formal school years -- for the rest of your life.

Some facts can, of course, be used by all of us. We need some knowledge of chemistry if we are to understand ourselves and many of the things which affect our daily lives: drugs, detergents, food additives, plastics, and pollutants. Recent developments in science have proven that even learning itself is, in part, a chemical process.

The building of the pyramids, the use of metals to fashion tools, the industrial revolution, air and space travel, and developments in the various communications media are only a few of the great human accomplishments that can be related to breakthroughs in knowledge of basic scientific principles and their applications.

Rubbing two objects together to produce fire or moving a heavy stone by applying leverage with a stick are examples of basic scientific principles affecting human history in important ways. Simple though they may seem, such principles are among the building blocks of all scientific knowledge. Physics and chemistry are the core disciplines of many fields of physical science, including geology, meteorology, astronomy, engineering, and architecture.

Physicists study the properties, changes, and interactions of matter and energy. Mechanics, thermodynamics, optics, and acoustics are all subdivisions of physics. Some knowledge of physics is essential to astronomers, opticians, architects, electricians, and stereo equipment installers, among others. A knowledge of physics can be just as helpful to the person whose car gets stuck in sand, snow, or mud, or to the do-it-yourself homebuilder who wants to place a heat register in the most advantageous location.

Chemistry deals with physical phenomena also, but is concerned primarily with the composition and properties of substances and the reactions within and among them that produce other substances. Like physics, it has many subdivisions. The study of the chemical properties of atomic particles, for example, is called nuclear chemistry. Biochemistry focuses on the chemical composition and processes of living organisms.

If you are interested in planning a project related to any of these areas, this package should help you. Ideas for projects are offered throughout the package. Check the list of resources at the end for people and organizations you might work with. Use the sample projects as models in developing your own Project Plan. The section on how to plan and carry out a project gives detailed instructions to help you get started. Your Learning Coordinator will use the package goals and requirements to determine, with you, the kind and amount of credit your project will earn. Study them before planning your project and you will be ahead of the game.

Through your own project and your participation in the Physical Science Project Seminar, you should become more aware of the physical world around you, what it is made of and how it works, and how you can use this knowledge in your daily life. You should also learn more about some interesting careers in the field of physical science.

Project Ideas

The topics below suggest only a few of the issues and careers around which you can plan a project in the field of physical science. The sample projects, beginning on page 23, offer some additional ideas.

Sources of Energy

What are the alternative sources of energy? How can they be used? What are the advantages and disadvantages of each? How can this country make the most efficient use of its existing energy supplies? What principles should guide the development and use of energy sources? Why? How has a shortage of energy affected you and your family? How might it affect you if shortages were to suddenly become more severe? Should the federal government control energy production and consumption? How?

Buildings and Construction

How do materials and construction methods limit or make possible certain building designs and construction? How does an architect draw on a knowledge of physics and other sciences, such as geology and seismology, when designing a building? What other careers and knowledge are used by those who design and construct buildings? Who does the actual construction and installation of the necessary equipment and facilities? What knowledge of physics do these people need? What skills? What kinds of machines are used in the construction? How do they work? What principles of physical science do these machines employ?

Computers

How does a computer work? What can computers do? Are there things computers cannot do? What? What ethical questions are raised by having so many businesses and organizations (especially government) relying on computers? Who should have access to the information stored in computers? When? Why? What skills are needed to operate a computer? To program a computer? To design a computer? What scientific discoveries would not have been possible without computers? What is the relationship between science and technology?

803

Fire Fighting

How have new developments in chemistry and technology changed fire-fighting techniques? What kinds of chemicals are used to put out fires? How do they work? Do different types of fires require different kinds of chemicals? Why? What things should an individual keep in his or her home in case of fire? How can a person prevent fires from starting in his home? What should be done in the event a fire does start? Why? What equipment and materials are now used to fight fires? What are the differences between fighting a fire in a city building and fighting a forest fire? Is the same kind of equipment used? The same kinds of chemicals? Why? What new kinds of construction materials and clothing materials are used to help prevent or slow down the burning process? How do they work?

Careers You Can Explore

Some careers in the field of physical science are concerned with expanding our knowledge; others put that knowledge to use in a practical way. Because of rapid advances in technology, new areas of work are constantly emerging. Below are just a few of the careers you might explore through a project in physical science.

- air traffic controller
- architect
- astronomer
- chemical analyst
- civil and hydraulic engineer
- computer designer
- computer operator
- computer programmer
- control room technician
- draftsperson
- dubbing machine operator
- electrical engineer
- electrical equipment installer
- engineering aide
- farm equipment mechanic
- fire fighter
- heavy equipment operator
- industrial chemist
- irrigation engineer
- mathematician
- mathematics teacher
- mechanical engineer
- miner
- mining engineer
- mining machinery operator
- nuclear chemist
- optician
- optometrist
- physical science teacher
- physicist
- plumber
- power plant attendant
- powerhouse attendant
- radio engineer
- radiotelegraph operator
- research assistant
- rotary driller
- roustabout
- scientific photographer
- set electrician
- soil technologist
- sound mixer
- statistician
- surveyor
- tabulating machine operator
- television cable line installer
- transmission engineer
- X-ray technician

How to Plan and Complete a Project

Your project might begin with a desire to explore a career, to dig into a social, scientific, or political problem, to work with a particular resource, or to earn credits required to graduate or to pursue your educational and career goals. Wherever you start, you will need shortly to decide what you will be doing, with whom, and what you plan to learn about or learn how to do through your project. You are essentially planning your own course of study, just as a teacher must plan a class. Your plans must be in writing so that you, your Learning Coordinator, and the resources with whom you are working all know what you hope to accomplish. Your plans will grow and change as you work on the project; make sure these changes are recorded and approved by your Learning Coordinator (LC). At a time agreed upon by you and your LC -- about one month before you plan to complete your project -- you will be asked to develop a final Project Plan which then becomes a learning contract you are promising to keep in return for the credit you seek. Below are some pointers for how to plan and complete a project. They offer a guide only. Where you will need to start and how you will proceed depends on how clear an idea you have of what you want to do. Beginning from scratch, you should do the following.

Finding a Topic

1. Read through the project ideas, sample projects, and lists of resources in the packages to find out what you can do and learn with the people and organizations who are ready to work with you.

2. Meet with your LC to discuss your interests:

   - what you want to explore -- a career, a subject, an issue, or a combination of these -- and the kinds of things you would like to learn;

   - which package you should use, who is coordinating it, and when the project seminar meets; and

   - which resources you want to or ought to contact.

3. Attend some project seminar meetings to:

   - get ideas, suggestions, and assistance in planning your project from the Package Coordinator and the other students, and
   - broaden your knowledge of careers, issues, problems, ideas, and techniques related to the package.

4. Choose some resources that interest you, plan Orientation visits using a Project Sketch, visit the resources, discuss your ideas with them, and explore possible project topics. The purpose of your Orientations should be to help you find out what you want to learn about or learn how to do, where, and with whom. NOTE: You must go beyond these brief Orientations to really plan and complete a worthwhile project. You may wish to broaden your knowledge of an issue or career by visiting several resources and working with one or two at the Exploration level. Or you may wish to dig into a subject or career and develop some expert knowledge or skills through working with one resource for an extended period of time.

Developing a Plan

5. When you have settled on an area of interest, start planning your project on a Student Project Plan. See the sample projects in this package for models. If you have trouble understanding what your project should look like on paper, see your LC and the Package Coordinator. After three or four Orientation visits to resources, you should be able to do the following (and complete the appropriate sections of the Project Plan):

   - Describe the theme of your project.
   - Pose significant questions you will investigate.
   - List the resources you have used and plan to use in completing your project. (If no resources are available in your area of interest, you may have to recruit some yourself. Ask your LC and the Resource Analyst for help.)
   - Identify related reading or other research materials you will use and how you will use them.
   - Identify special requirements or prerequisites.
   - Estimate how long your project will take.

6. After two or three more visits with your resources, you should be able to:

- State what you want to learn about or learn how to do through your project (your goals) and how you will demonstrate you have learned it (your indicators). Pace your work by making some indicators due earlier than others. Be sure that your goals and indicators include at least one product. REMEMBER: You can change, refine, add to, or delete goals and indicators until the cutoff date decided upon by you and your LC, after which your Project Plan becomes a learning contract.

- If you want someone in addition to your LC to evaluate your work (such as a Resource Person or the Package Coordinator), ask that person if he or she is willing to do it. Only those who have agreed to evaluate your products and/or performance should be listed as evaluators on the last page(s) of your Student Project Plan.

- Be sure that your project will be worth the amount and type of credit you wish to receive. (With your LC, compare your project goals and indicators with the package goals using the goal checklist.) If you cannot meet the package requirements for the amount and type of credit you want with one project, do two.

- Be sure to discuss your project topic with your resources and work with them to firm up your Plan.

Completing Your Project

7. Work with your resources, do your research and related reading, and have weekly discussions with your LC, keeping him or her informed of your interests, goals, and activities.

8. Whenever possible, relate work you are doing in workshops or other supplementary activities to your projects. (For example, bring early drafts of project reports to your English instructor or tutor to have them reviewed and critiqued.)

9. Attend project seminar meetings to give progress reports, share your experiences, get help in solving problems you encounter, and learn how other students' projects and yours are related to a common subject/career area.

10. Wrap up your project and submit it for credit by:

- completing products and performance tests which demonstrate what you have learned. (Products can be written reports or essays, photographic essays or drawings, audio- or videotape recordings, or other media. Performance tests can be oral reports, presentations, or actual tasks at a resource site.)

- having your products and/or performance reviewed and evaluated by the persons designated on your Project Plan. (Be sure your evaluators record their assessments on the last page(s) of your Project Plan. If you agree with the evaluation, add your initials. If you disagree, state your reasons in the "Comments" column.)

- completing a Project Summary Report evaluating your own work and requesting the amount and type of credit you think you have earned through your project.

11. Turn in your Student Project Plan, product(s), and Project Summary Report to your LC for review, evaluation, and assignment of credit.

Project Seminars

One of the ways to make learning come alive is to talk about it -- to share what turns you on most, get help with problems, see if your insights make sense to others, and maybe even argue some about ideas or solutions. Project seminars are a series of meetings where students working in related subject areas can come together and rap about questions and issues common to the field they're all exploring. The meetings can be useful in a number of ways.

- First, they can help you with ideas for projects. If you don't already have one, listening to other students kick around their interests may trigger an idea of your own, some direction you hadn't thought of. If you do have a project in mind, these discussions can help you clarify and focus it, plus give you some good leads for resources to visit.

- You can't be sure what you know or how well you know it until you try to explain it to someone else. Testing your findings on others, bouncing ideas or conclusions off them, and describing particular experiences can help you get a firmer grasp on what you're learning. You may find you know more than you thought or see that some of your answers need rethinking.

- Through your own project, you will be able to explore only some of the interesting ideas, techniques, issues, and careers related to this package. Your fellow students will have the same problem. But together, in the project seminars, you can learn from each other's research and experiences, thus expanding your knowledge of the field in general.

- In the same way, talking with guest speakers, viewing films, or visiting relevant community resources as a group will broaden your understanding of the discipline and related careers.

- Project seminars provide a resource you can tap to solve problems encountered in carrying out your project. If you're having trouble working with a particular Resource Person, finding sources of information about your topic, or deciding what kind of product will best communicate your findings, other students and the Package Coordinator can help you analyze alternatives and find a solution.

- Finally, you may discover that some students share your interests and concerns and would like to combine talents and energies into a group project. Working jointly you can sometimes tackle bigger problems and cover more ground.

Using the Package Goals

The goals on the following pages outline some important kinds of learning which should be included in your project. They are meant to stretch your imagination and to help you develop a worthwhile Plan, not to confine your thinking. Minimum requirements for a project are given, so that you and your Learning Coordinator have standards for judging whether your project is roughly equal in amount of work to a class in the subject. These goals and requirements are broadly stated to allow you great freedom in deciding exactly what you will learn, with whom, how you will demonstrate your new knowledge or skills, and who will evaluate your work.

When you have drafted your Project Plan, compare it with the package goals and requirements. You can use the goal checklist to make certain your Plan is complete. If you have trouble understanding the goals or how to use them, ask your Learning Coordinator for help.

Physical Science Package Goals

GOAL 1: BASIC SKILLS (Required)

You should practice and improve your basic skills by using at least one method of acquiring and one method of communicating information in the course of your project.

ACQUIRING INFORMATION (choose one)

- Reading: You should be able to read critically and comprehend newspaper and magazine articles, scientific journals, books, or other materials pertinent to your project.
- Listening: You should be able to listen effectively and critically to speeches, lectures, broadcasts, or other commentaries related to your project.
- Observing: You should be able to acquire and interpret information from slides, films, experiments, charts, graphs, and other materials or events appropriate to your project.

COMMUNICATING INFORMATION (choose one)

- Writing: You should be able to clearly express in writing ideas and findings from your project.
- Speaking: You should be able to orally express ideas and findings related to your project in a manner that effectively communicates with others.
- Innovating: You should be able to communicate ideas or findings using means other than the written or spoken word, for example, through creating photographs or a film, graphic illustrations, or working models.

GOAL 2: PROBLEM-SOLVING (Required)

You should expand your problem-solving skills by designing and conducting experiments, researching a major problem or question facing physical scientists today, or thoroughly investigating a physical phenomenon. To do so, you should use scientific methods including the following:

- Identify a significant problem or question. (Why is it important? Who or what does it affect?)
- Analyze existing information.
- Make your own observations.
- Formulate an hypothesis to be investigated. (An hypothesis is an idea or a question stated in such a way that it can be tested. For example, "Heavier objects fall faster than lighter objects.")
- Design and carry out an experiment, or seek additional data or observations, to test the hypothesis.
- Organize and evaluate the information obtained.

GOAL 3: CAREER DEVELOPMENT (Choose a or b)

a. You should learn enough about two careers in the field of physical science to evaluate them in terms of your own interests, values, goals, and abilities. Your research should include the following:

- The roles and functions of an employee.
- The relation of the career to other careers.
- The qualifications and routes for entry.
- The working conditions, rewards, and benefits of the career.
- The current and projected demand in the field.
- Union or professional affiliations that are desirable or necessary.
- The effect of the job on one's lifestyle.
- Your own evaluation of the career.

b. You should develop career entrance skills in two of the following areas:

- Obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements.
- Preparing letters of inquiry, applications and resumés for employment or school entry.
- Preparing for and performing effectively in employment or other admissions interviews.
- Acquiring job-entry skills and experience in a chosen career field.

Physical Science Package Goals (continued)

Through a physical science project you can choose to increase your knowledge of concepts and principles in the field (Goal 4), your ability to use specific techniques (Goal 5), or your can learn both principles and techniques by selecting some elements from each goal for a total of five. If you desire laboratory science credit for your project, you must include five elements from Goal 4 and five elements from Goal 5 (for a total of ten).

GOAL 4: PHYSICAL SCIENCE INQUIRY (Choose five)

Through your study and research you should learn about and show you can use at least five of the concepts, principles, and relationships listed below (or five comparable ones).

- What are the characteristics of matter? What are its properties? What is its structure? How do we know? What have scientists discovered recently about the structure of matter? What methods are they using to learn more about it?
- What is a chemical reaction? How does one occur? Why? How can you tell if one chemical will "react" with another? What kinds of reactions are there?
- What kinds of chemicals are naturally found in living things? What other kinds of chemicals exist? What chemicals must be man-made? How are they created?
- What are the characteristics of elements? What are the different kinds of elements? What is the structure of an element? How have elements been discovered? How are they used? Where are they found? What is their significance for life?
- What are the characteristics of compounds? What kinds of compounds exist naturally? What kinds of compounds have been made by people? What is the structure of a compound? What is the relationship of compounds to living things?
- How are elements and compounds classified? How is this classification system used? Why is it used? What do their properties and structure have to do with the way elements are classified?
- What is energy? How is energy used? What is the relationship between energy and machines? Energy and work? Energy and matter?
- What is the importance of measurement? How are matter and energy measured? What physical characteristics can be measured? What kinds of movement can be measured? What structural changes can be measured? What chemical changes can be measured? How?
- What are the differences between liquids, gases, and solids? What are the characteristics of each? How does a liquid change to a gas? To a solid? What can you do with a substance in one form that you cannot do with it in other forms?
- What is a force? How can force be used? How do different substances exert force on each other? What different kinds of force can be exerted? What kinds of machines are used to exert force? How do they work?
- When does motion occur? What kinds of things move? How can a substance be moved? What types of motion are there? How are they used? For what purposes? What is the relationship between force and motion?
- What are heat, light, and sound? What are their characteristics? How are they different? How are they similar? What are they used for and how? How are they measured? What is the relationship between light and color? Between pitch and sound? Between temperature and heat?
- What causes magnetism and electricity? How? What are their properties? How are they used? What are they used for? What kinds of machines use magnetic fields or electrical currents? How do these machines work?
- What is the atmosphere composed of? How does the atmosphere affect life on earth? How do humans affect the atmosphere? What is the relationship between the atmosphere and weather?
- What is a mixture? How are mixtures used? How are they made? What is a solution? What kinds of substances dissolve? What kinds of substances can dissolve other substances?
- What is the universe? What kinds of objects have been identified in outer space? What are they made of? What is the relationship of these things to the Earth? How do they move? What is known about the origin of the universe? How far does space extend?
- What is the structure of an atom? What is the definition of an atom? What are the properties of atoms? What are nuclear reactions? How are they related to atomic structure? How are nuclear reactions caused?
- Other (specify).

Physical Science Package Goals (continued)

GOAL 5: PHYSICAL SCIENCE TECHNIQUES (Choose five)

You should be able to identify, understand, and use at least five of the specialized skills and techniques of an area of physical science that interests you. Working with your resources and Learning Coordinator, decide what techniques and skills are needed in the career or discipline you are investigating and state exactly which ones you want to explore.

- Set up and safely use standard laboratory equipment and materials such as microscopes; filtration equipment; thermometers, hydrometers and other measuring devices; Bunsen burners; and chemicals.
- Perform necessary mathematical computations.
- Accurately use a slide rule.
- Understand and use the metric system of measurement.
- Use basic statistical methods to interpret data collected.
- Use the tables of trigonometric functions (sines, cosines, tangents, etc.) to perform mathematical calculations.
- Explain and strictly follow safety procedures and precautions for handling or mixing chemicals.
- Set up and safely use electrical and electronic laboratory equipment and measuring devices such as conductors, resistors, switches, voltmeters, ohmmeters, and oscilloscopes.
- Set up and safely use mechanical and mechanized laboratory equipment such as levers, pulleys, balances, gear systems, and motors.
- Understand and use the periodic table of elements.
- Use, interpret, and represent data in tables and graphs.
- Diagram such things as the way light travels through a concave lens or through a prism, the structure of a compound or an atom of a given element, or the relationship of the sun to the planets and their moons.
- Use and interpret profile maps, graphs, or illustrations showing various features of the earth.
- Other (specify).

Obviously, it could take years to become expert in some of the above. If you wish to specialize and earn credit in a particular skill area, such as statistics, you will be expected to meet the performance standards for the subject generally employed in your school or district or demonstrate entry-level job skills.

BEST COPY AVAILABLE

Experience-Based Career Education	PHYSICAL SCIENCE PACKAGE GOAL CHECKLIST
STUDENT'S NAME	DATE
PROJECT TITLE	

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* ☐ reading ☐ listening ☐ observing *Communicating Information* ☐ writing ☐ speaking ☐ innovating
2. PROBLEM-SOLVING	*All elements*	☐ identify problem or question ☐ analyze existing information ☐ make your own observations ☐ formulate an hypothesis ☐ test hypothesis ☐ organize and evaluate information
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	☐ a. investigate two careers in terms of: ☐ roles and function of employee ☐ relation of career to other careers ☐ qualifications for entry ☐ working conditions, rewards, benefits ☐ current and projected demand ☐ union or professional affiliations ☐ effects of job on lifestyle ☐ your own evaluation of the career ☐ b. develop career entrance skills in two of the following areas: ☐ obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements ☐ preparing letters of inquiry, applications and resumés ☐ preparing for and performing in interviews ☐ acquiring job-entry skills and career-related experience

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PHYSICAL SCIENCE PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from either Goal 4 or Goal 5, or you can combine elements from each as long as you select five altogether. For laboratory science credit, you must select five from Goal 4 and Goal 5 (for a total of ten).

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. PHYSICAL SCIENCE INQUIRY	*At least five elements or five comparable elements*	[ ] matter [ ] chemical reactions [ ] chemicals [ ] elements [ ] compounds [ ] classification system [ ] energy [ ] measurement [ ] liquids, gases, and solids [ ] force [ ] motion [ ] heat, light, and sound [ ] magnetism and electricity [ ] the atmosphere [ ] mixtures and solutions [ ] the universe [ ] atoms [ ] other (specify) ____________
5. PHYSICAL SCIENCE TECHNIQUES	*At least five elements or five comparable elements*	[ ] set up and safely use standard laboratory equipment [ ] perform necessary mathematical computations [ ] accurately use a slide rule [ ] understand and use the metric system [ ] use basic statistical methods [ ] use the tables of trigonometric functions [ ] follow safety procedures and precautions for handling or mixing chemicals [ ] set up and safely use electrical and electronic laboratory equipment [ ] set up and safely use mechanical and mechanized laboratory equipment [ ] understand and use the periodic table of elements [ ] use, interpret, and represent data in tables and graphs [ ] diagram physical structures or relationships [ ] use and interpret maps, graphs, or illustrations [ ] other (specify) ____________

Course Equivalencies

One of the things you should consider when you plan your project is the kind of credit you need to graduate. Depending on the focus of your study within the broad field of physical science, you may earn credit in the subject areas below.

Astronomy
Chemistry
Computer Science
Drafting
Earth Science
Electronics
Geology
Physics
Physical Science

Your Learning Coordinator will help you decide how much and what kind of credit you will earn when you complete your project. Your LC will also help you, if necessary, develop or expand your Project Plan to earn the kind of credit you desire.

NOTE: If you want 5 credits of a laboratory science (college preparatory course), you need to choose five elements from Goal 4 and five from Goal 5 for a total of ten. See the Physical Science Package Goals on pages 15-17.

Sample Projects

What does a good Project Plan look like? The samples on the following pages show projects, each worth 5 or 10 credits, focusing on different topics, issues, and careers. Browse through them for ideas. Look at them when planning your own project to see how to write goals and indicators. Use them to trigger ideas of your own, and as concrete examples of the kinds of things you can do with the resources available. By changing it to suit your interests, you can even take one of the sample projects and make it your own.

Sample Project 1

Applied Physics

What are the basic laws of physics? How are they used? When do they work against us and how can they be made to work for us? When were the major laws of physics stated, how were they discovered, and by whom? These are some of the questions you can answer through this project. It will also introduce you to some of the careers that apply the latest scientific and technological discoveries.

- Visit a museum or science center where physical phenomena and laws are demonstrated. Everyone knows you can only fall down, not up, but do you know why? What part does appearance play in our knowledge and understanding of the world around us? When do our vision and other senses deceive us, why, and how?
- Visit a bike repair shop to learn the mechanics of bicycles. How is the design of a bicycle based on a knowledge of physics? How have scientific discoveries changed bicycle design since the early 1900's?
- Read some articles, popular books, or basic texts to learn more about some of the major concepts and laws of physics, their discovery, and related historical developments.
- Visit a local airport tower. What equipment and machinery are use to track the path of an airplane and on what knowledge of physics was the development of that equipment based? How has the development of new kinds of aircraft forced development of equipment to accommodate them, such as new radar equipment or new runway designs? What technological advances have been made possible by new knowledge in physics?

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect your interests and available resources, or write new ones to guide and document your activities.

Experience-Based Career Education

PROJECT SKETCH

Use this form to plan your resource orientations. Obtain your Learning Coordinator's approval before visiting a resource.

STUDENT John Brown LC Jim Connors DATE 9/30/75

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

physical science

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. What are some of the laws of physics?
2. How are they used?
3. What careers use knowledge of the laws of physics?
4. How do the gears on a bicycle work?
5. What makes some bicycles better (easier to ride) than others?
6.
7.
8.

III. WHAT RESOURCES WILL YOU USE?

RP/RO/[✓ CR] *(Circle one)* State University Hall of Science Phone 462-0618
Address 1812 University Way

RP/RO/[✓ CR] *(Circle one)* Exploratorium Phone 653-7337
Address 601 Lyon Street

[✓ RP]/RO/CR *(Circle one)* Irene Davis Phone 791-6682
Address Fifth Wheel, 638 Park Street

OTHER RESOURCES *(Give name of person or title and author of books, articles, etc.)*

I HAVE READ THE RESOURCE GUIDE(S) ☒ Yes ☐ No If not, give reasons:

APPROVED BY LC Jim Connors DATE 10-2-75

LC FOLLOW-UP

☒ The student has decided to do a project in this interest area.
☐ The student has decided not to pursue this interest further because:

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE
YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

Distribution: Original (White) - LC; Yellow - Student; Pink - Resource Analyst

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Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT John Brown PROJECT NO. 1 PACKAGE Physical Science

LC APPROVAL Jim Connors DATE 10-7-75 DATE PROJECT STARTED 10/2/75

TECHNICAL ADVISOR(S) *(If any)*

I. PROJECT DESCRIPTION

A. *Title* Applied Physics

PLANNED CREDITS		EBCE Credits
Subject Area(s)	1. Physical Science	5
	2.	
	3.	

B. Theme *(Please give a brief description of your project)*

The purpose of this project is to learn the basic laws of physics and how they are used for practical purposes. I also want to learn the mechanics of 10-speed bicycles and how to repair them.

C. *Questions to be Investigated:*

How are the principles and concepts of physics applied in everyday life?

What is meant by the term "a law of physics"?

How can an increased knowledge of physics shape the future of our country, if at all?

Have physical laws and concepts changed over time? How? Why?

What are some of the ways these changes have affected our lives?

What mechanical principles are involved in the operation and repair of 10-speed bicycles?

What opportunities are there for employment as a bicycle mechanic?

FOR LEARNING COORDINATOR USE ONLY

Mid-Term Review *Initials* *Date*		*End-of-Term Review* *Initials* *Date*

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STUDENT PROJECT PLAN

Page 2 of 4

II. IDENTIFICATION OF RPs, ROs, & CRs

A. Completed Visits (Identify resources already visited for Orientation)

Resource Name	Address	Phone	RP	RO	CR	Hours Spent
Exploratorium	601 Lyon Street	653-7337			X	2
State University Hall of Science	1812 University Way	462-0618			X	2
Irene Davis	Fifth Wheel, 638 Park Street	791-6682	X			2

B. Planned Visits (Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)

Resource Name	Address	Phone	Acty *Level			RP	RO	CR	Est. Hours
			O	E	I				
Rick Hubbard	Exploratorium 601 Lyon Street	653-7337	X			X			2
Carla Hsu	International Airport Tower, 10020 Airport Dr.	763-0601	X			X			2
Irene Davis	Fifth Wheel 638 Park Street	791-6682			X	X			45

* O = Orientation; E = Exploration; I = Investigation

C. Related Reading/Research (Give Titles)

Of Time and Space and Other Things, Isaac Asimov

Experiment in Seeing, Harry Asher

Understanding Physics: Light, Magnetism, Electricity, Isaac Asimov

Understanding Physics: The Electron, Proton, and Neutron, Isaac Asimov

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS (See Resource Guides. Some sites require special insurance, health certificates, etc.)

A. Prequisites none

B. Materials or Equipment notebook and camera

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits 55 Hrs. Product Production 15 Hrs.

B. Reading 20 Hrs. Other (specify) ____ Hrs.

TOTAL HOURS 90

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT 11/20/75

PLANNED PROJECT COMPLETION DATE 12/19/75

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 3 of 4

Student John Brown **LC** Jim Connors **Project Title** Applied Physics

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 1: Know the history and development of the basic concepts and principles of physics.					
a. I will compare, in a written essay, our knowledge of physics today with that of 50 years ago.	11/3	Package Coordinator			
b. In this essay, I will explain three major principles -- energy, force, and motion -- and analyze how our knowledge of these has affected our society, especially the technology we have developed based on them.	11/3	Package Coordinator			
GOAL 2: Understand some of the practical applications of physics concepts.					
a. I will demonstrate the laws and principles of physics by which a bicycle operates and show how various mechanical parts work.	11/25	Package Coordinator			
b. Using a diagram I have drawn, I will explain to the Physical Science Project Seminar how radar works and the physics concepts on which it is based.	11/25	Package Coordinator			
c. Same as Indicator b for Goal 1 above.					

(continued on next page)

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 4 of 4

Student John Brown *LC* Jim Connors *Project Title* Applied Physics

Goals and Indicators	*For Indicators*		*For Evaluator's Use*		
	Due Date	*Evaluator*	*Date*	*Initials & Rating*	*Comments*
GOAL 3: Acquire job-entry skills and experience as a bicycle mechanic and information about current job openings, training opportunities, and entry requirements.					
a. I will complete five different kinds of repairs as assigned by my RP, including doing the necessary diagnosis of the problem, the best method to correct it, an estimate of the time the task will require, description of necessary parts, and an estimate of the total cost.	12/15	Irene Davis			
b. I will summarize the results of a survey of 20 bicycle shops in the area to determine whether they have or anticipate any openings in the near future, the training and experience they require for a position as mechanic, and whether they have any apprencticeship or other training programs available.	12/15	Jim Connors			

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Experience-Based Career Education	PHYSICAL SCIENCE PACKAGE GOAL CHECKLIST

STUDENT'S NAME *John Brown* DATE *10/7/75*

PROJECT TITLE *Applied Physics*

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* [X] reading [ ] listening [ ] observing *Communicating Information* [X] writing [ ] speaking [X] innovating
2. PROBLEM-SOLVING	*All elements*	[X] identify problem or question [X] analyze existing information [X] make your own observations [X] formulate an hypothesis [X] test hypothesis [X] organize and evaluate information
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	[ ] a. investigate two careers in terms of: [ ] roles and function of employee [ ] relation of career to other careers [ ] qualifications for entry [ ] working conditions, rewards, benefits [ ] current and projected demand [ ] union or professional affiliations [ ] effects of job on lifestyle [ ] your own evaluation of the career [X] b. develop career entrance skills in two of the following areas: [X] obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements [ ] preparing letters of inquiry, applications and resumés [ ] preparing for and performing in interviews [X] acquiring job-entry skills and career-related experience

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PHYSICAL SCIENCE PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from either Goal 4 or Goal 5, or you can combine elements from each as long as you select five altogether. For laboratory science credit, you must select five from Goal 4 and Goal 5 (for a total of ten).

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. PHYSICAL SCIENCE INQUIRY	*At least five elements or five comparable elements*	☐ matter ☐ chemical reactions ☐ chemicals ☐ elements ☐ compounds ☐ classification system ☒ energy ☐ measurement ☐ liquids, gases, and solids ☒ force ☒ motion ☐ heat, light, and sound ☐ magnetism and electricity ☐ the atmosphere ☐ mixtures and solutions ☐ the universe ☐ atoms ☒ other (specify) (1) high frequency radio waves ☒ (as used in radar); (2) gears and gear ratios
5. PHYSICAL SCIENCE TECHNIQUES	*At least five elements or five comparable elements*	☐ set up and safely use standard laboratory equipment ☐ perform necessary mathematical computations ☐ accurately use a slide rule ☐ understand and use the metric system ☐ use basic statistical methods ☐ use the tables of trigonometric functions ☐ follow safety procedures and precautions for handling or mixing chemicals ☐ set up and safely use electrical and electronic laboratory equipment ☐ set up and safely use mechanical and mechanized laboratory equipment ☐ understand and use the periodic table of elements ☐ use, interpret, and represent data in tables and graphs ☒ diagram physical structures or relationships ☐ use and interpret maps, graphs, or illustrations ☐ other (specify)__________

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931

Sample Project 2
Chemistry of the Body

What is a chemical? Are there any differences between organic and artificial chemicals? Why? What are they? The purpose of this project is to learn what chemicals and chemistry are, the principles and concepts on which chemistry is based, and laboratory techniques used in the study of chemistry.

- Visit a science hall to study exhibits on chemistry and observe laboratory equipment and procedures.
- Arrange an Investigation at a medical laboratory where you can develop laboratory skills and techniques. How is a knowledge of chemistry used in medical analysis? What bodily functions are chemical in nature? How can a knowledge of chemistry help in understanding the human body? How much does medical science really know about the chemistry of the human body? How does food affect human chemistry? How do chemical food additives help or harm the human body?
- Visit a chemist who can discuss with you the kinds of research now being done in the field of human chemistry. What new knowledge have scientists acquired about the chemical processes of the human body in the last ten years? What do we still not know about these processes? What are scientists trying to learn? How are they going about it?
- Read what scientists are trying to learn about human chemistry and the effects of pollutants and additives in foods on the body.

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect your interests and available resources, or write new ones to guide and document your activities.

Experience-Based Career Education

PROJECT SKETCH

Use this form to plan your resource orientations. Obtain your Learning Coordinator's approval before visiting a resource.

STUDENT Ann Johnson LC Ted Grant DATE 2/7/75

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

chemistry and related careers

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. What is chemistry?
2. What careers use a knowledge of chemistry?
3. What is a chemical?
4. How does chemistry relate to other sciences?
5. What can you learn through chemistry?
6.
7.
8.

III. WHAT RESOURCES WILL YOU USE?

RP/RO/[✓ CR] *(Circle one)* State University Hall of Science Phone 462-0618
Address 1812 University Way

RP/[✓ RO]/CR *(Circle one)* Washburn Laboratories Phone 541-1060
Address 2945 Oak Street

[✓ RP]/RO/CR *(Circle one)* Steve Hendricks Phone 843-2740 ext. 6129
Address State University Science Laboratory, Room 1081

OTHER RESOURCES *(Give name of person or title and author of books, articles, etc.)*

I HAVE READ THE RESOURCE GUIDE(S) ☒ Yes ☐ No If not, give reasons:

APPROVED BY LC Ted Grant DATE 2/7/75

LC FOLLOW-UP

☒ The student has decided to do a project in this interest area.

☐ The student has decided not to pursue this interest further because:

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

Distribution: Original (White) - LC; Yellow - Student; Pink - Resource Analyst

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Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT *Ann Johnson* PROJECT NO. *2* PACKAGE *Physical Science*

LC APPROVAL *Ted Grant* DATE *2/14/75* DATE PROJECT STARTED *2/7/75*

TECHNICAL ADVISOR(S) *(If any)* ______

I. PROJECT DESCRIPTION

A. *Title* Chemistry of the Body

PLANNED CREDITS		EBCE Credits
Subject Area(s)	1. Chemistry (lab science)	5
	2.	
	3.	

B. *Theme* *(Please give a brief description of your project)*

I am interested in learning about the chemistry of the human body: what processes are chemical ones; how they relate to human health and growth; how chemistry is used in medical analysis; what we know and don't know about body chemistry; and problems chemists and members of the medical profession are trying to solve. I also want to learn basic chemistry laboratory skills and techniques.

C. *Questions to be Investigated:*

What body functions are chemical?

How big a part does chemistry play in human health?

How can chemical research give us a better understanding of the human body?

What problems are chemical research scientists trying to solve?

How close are they to solving them?

Do chemical additives and preservatives in food affect human health? How?

What level of chemical pollutants (such as DDT) in the human body is safe?

How do we know what a safe level is?

FOR LEARNING COORDINATOR USE ONLY

Mid-Term Review ______ *Initials* *Date*	*End-of-Term Review* ______ *Initials* *Date*

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STUDENT PROJECT PLAN

Page 2 of 4

II. IDENTIFICATION OF RPs, ROs, & CRs

A. Completed Visits (Identify resources already visited for Orientation)

Resource Name	Address	Phone	RP	RO	CR	Hours Spent
State University Hall of Science	1812 University Way	462-0618			X	2
Washburn Laboratories	2945 Oak Street	541-6010		X		2
Steve Hendricks	State Univ. Science Lab Room 1081	843-2740 ext 6129	X			1

B. Planned Visits (Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)

Resource Name	Address	Phone	Acty *Level			RP	RO	CR	Est. Hours
			O	E	I				
Steve Hendricks	State Univ. Science Lab Room 1081	843-2740 ext 6129	X			X			3
Paul Whiteman, Director Washburn Laboratories	2945 Oak Street	541-6010			X		X		120

* O = Orientation; E = Exploration; I = Investigation

C. Related Reading/Research (Give Titles)

Poisons in Your Food, R. Winter

Using Mathematics, Henderson and Pingry, pages 147-149

Chemistry for Changing Times, John W. Hill

The Chemicals of Life, Isaac Asimov   Breakthroughs in Chemistry, P. Wolff

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS (See Resource Guides. Some sites require special insurance, health certificates, etc.)

A. Prequisites ____

B. Materials or Equipment ____

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits 128 Hrs.   Product Production 15 Hrs.

B. Reading 30 Hrs.   Other (specify) ____ Hrs.

TOTAL HOURS 173

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT 3-14-75

PLANNED PROJECT COMPLETION DATE 4-11-75

STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 3 of 4

Student Ann Johnson LC Ted Grant Project Title Chemistry of the Body

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOALS:					
1. Understand the chemical functions of the human body.					
2. Apply knowledge of chemistry and laboratory techniques to medical analysis.					
3. Know how chemical pollutants and food additives can affect body chemistry.					
4. Understand requirements, advantages and disadvantages, and how my interests relate to the careers of medical lab chemist and research chemist.					
INDICATORS:					
a. Diagram the molecular changes of 15 major chemical reactions that take place in the body. Explain why the changes occur, how they occur, and their effects. (Goal 1)	2/28	Paul Whiteman			
b. Design and conduct an experiment to determine what can be learned about my eating habits by chemically analyzing samples of my blood and urine. (Goals 1, 2, and 3)	3/10	Package Coordinator			
(continued on next page)					

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 4 of 4

Student Ann Johnson **LC** Ted Grant **Project Title** Chemistry of the Body

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
INDICATORS (continued):					
c. Write a report of my experiment. Include measurements made (using the metric system), mathematical calculations used, the classifications of chemicals used or analyzed, and definitions of terms. Use tables and graphs to present data. (Goals 1, 2, and 3)	3/31	Package Coordinator and Paul Whiteman			
d. Demonstrate to my Learning Coordinator that I can use a slide rule to perform calculations for my experiment. (Goal 2)	3/21	Ted Grant			
e. Compose drawings of five types of equipment used in my experiment. Explain the uses of each. (Goal 2)	3/31	Paul Whiteman			
f. Explain the known effects of significant levels of five food additives or pollutants (such as mercury and sodium nitrate) on the body. (Goal 3)	4/4	Paul Whiteman			
g. Complete Job Information Questionnaires for the careers of medical lab chemist and research chemist. (Goal 4)	4/9	Ted Grant			

USE AS MANY COPIES OF THIS PAGE AS ARE NECESSARY

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Experience-Based Career Education	PHYSICAL SCIENCE PACKAGE GOAL CHECKLIST

STUDENT'S NAME *Ann Johnson* DATE 2/14/75

PROJECT TITLE *Chemistry of the Body*

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* ☒ reading ☒ listening ☒ observing *Communicating Information* ☒ writing ☒ speaking ☒ innovating
2. PROBLEM-SOLVING	*All elements*	☒ identify problem or question ☒ analyze existing information ☒ make your own observations ☒ formulate an hypothesis ☒ test hypothesis ☒ organize and evaluate information
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	☒ a. investigate two careers in terms of: ☒ roles and function of employee ☒ relation of career to other careers ☒ qualifications for entry ☒ working conditions, rewards, benefits ☒ current and projected demand ☒ union or professional affiliations ☒ effects of job on lifestyle ☒ your own evaluation of the career ☐ b. develop career entrance skills in two of the following areas: ☐ obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements ☐ preparing letters of inquiry, applications and resumés ☐ preparing for and performing in interviews ☐ acquiring job-entry skills and career-related experience

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PHYSICAL SCIENCE PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from either Goal 4 or Goal 5, or you can combine elements from each as long as you select five altogether. For laboratory science credit, you must select five from Goal 4 and Goal 5 (for a total of ten).

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. PHYSICAL SCIENCE INQUIRY	*At least five elements or five comparable elements*	☐ matter ☒ chemical reactions ☒ chemicals ☒ elements ☒ compounds ☐ classification system ☐ energy ☒ measurement ☐ liquids, gases, and solids ☐ force ☐ motion ☐ heat, light, and sound ☐ magnetism and electricity ☐ the atmosphere ☐ mixtures and solutions ☐ the universe ☐ atoms ☐ other (specify) ____________
5. PHYSICAL SCIENCE TECHNIQUES	*At least five elements or five comparable elements*	☒ set up and safely use standard laboratory equipment ☒ perform necessary mathematical computations ☒ accurately use a slide rule ☒ understand and use the metric system ☐ use basic statistical methods ☐ use the tables of trigonometric functions ☐ follow safety procedures and precautions for handling or mixing chemicals ☐ set up and safely use electrical and electronic laboratory equipment ☐ set up and safely use mechanical and mechanized laboratory equipment ☐ understand and use the periodic table of elements ☒ use, interpret, and represent data in tables and graphs ☐ diagram physical structures or relationships ☐ use and interpret maps, graphs, or illustrations ☐ other (specify) ____________

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Sample Project 3

Space Science

What is out in outer space? What can be learned by studying the stars? Will space travel by non-scientists be possible in the next 50 or 100 years? If you are interested in studying outer space, space explorations, and the technology and careers associated with these topics, you might consider a project such as the one outlined below.

- To get a feeling for the field of space science, visit several Community Resources which concentrate on space science topics or problems. How are physics, astronomy, and electronics used to develop knowledge in the area of space science? What are space scientists currently trying to achieve? Why?
- Read The Revolution in Astronomy. What caused this revolution?
- Visit an astronomer. What is the role of astronomers in space science research and technology? How have space launchings contributed to our knowledge of the universe and the earth's place in it? What do astronomers yet have to learn? How do they hope to learn it?
- Visit an electrical engineer. How have developments in electronics enabled us to send people and equipment around the earth and to the moon? What new developments are electrical engineers working on in the field of space science? Are they on the brink of any new discoveries and, if so, what are they?
- Read Stars, Men, and Atoms by Heinz Haber and A Star Called the Sun by George Gamow to learn more about what is currently known about space, planets, and stars.
- Space science is a controversial subject in itself. Some people believe that money spent to send ships into outer space would be better spent developing new sources of energy, new food sources, and to solve problems of the poor and the population explosion here on earth. Should tax dollars be spent on space science research and development? Why?

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect your interests and available resources, or write new ones to guide and document your activities.

Experience-Based Career Education

PROJECT SKETCH

Use this form to plan your resource Orientations. Obtain your Learning Coordinator's approval before visiting a resource.

STUDENT Linda Shapiro LC Rosa Knapp DATE 2/26/75

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

space science

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. What are some of the careers open in the space sciences?
2. What kind of preparation does it require to be a space scientist?
3. Would I like to be a space scientist?
4. What questions are space scientists investigating now?
5.
6.
7.
8.

III. WHAT RESOURCES WILL YOU USE?

RP/RO/[✓ CR] *(Circle one)* State University Hall of Science Phone 462-0618
Address 1812 University Way

RP/RO/[✓ CR] *(Circle one)* Exploratorium Phone 653-7337
Address 601 Lyon Street

[✓ RP]/RO/CR *(Circle one)* Tom Weiss Phone 468-7306
Address Smith Observatory, 451 Observatory Drive

OTHER RESOURCES *(Give name of person or title and author of books, articles, etc.)*

I HAVE READ THE RESOURCE GUIDE(S) [X]Yes [ ]No If not, give reasons:

APPROVED BY LC Rosa Knapp. DATE 2/28/75

LC FOLLOW-UP

[X] The student has decided to do a project in this interest area.

[ ] The student has decided not to pursue this interest further because:

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

Distribution: Original (White) - LC; Yellow - Student; Pink - Resource Analyst

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Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT Linda Shapiro PROJECT NO. 3 PACKAGE Physical Science

LC APPROVAL Rosa Knapp DATE 3/3/75 DATE PROJECT STARTED 2/26/75

TECHNICAL ADVISOR(S) *(If any)* John DuBois

I. PROJECT DESCRIPTION

A. *Title* Space Science

PLANNED CREDITS		EBCE Credits
Subject Area(s)	1. Astronomy	5
	2.	
	3.	

B. *Theme* *(Please give a brief description of your project)*

Through this project I will learn how space explorations and space science careers add to our knowledge of astronomy. I will study what we know and what we don't know about outer space.

C. *Questions to be Investigated:*

What is the focus of space science research today?
What scientific knowledge do space scientists need?
What kinds of careers are possible in space science?
What are future career prospects in the field?
What do we know about outer space? How do we know it?
What don't we know about outer space?
What is the most significant problem facing space scientists today?
How do electrical engineers, astronomers, and physicists work together in space science research and development?
Should our tax dollars be spent for space science research and development? Why?

FOR LEARNING COORDINATOR USE ONLY					
Mid-Term Review	*Initials*	*Date*	*End-of-Term Review*	*Initials*	*Date*

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STUDENT PROJECT PLAN

Page 2 of 4

II. IDENTIFICATION OF RPs, ROs, & CRs

A. Completed Visits (Identify resources already visited for Orientation)

Resource Name	Address	Phone	RP	RO	CR	Hours Spent
State University Hall of Science	1812 University Way	462-0618			X	4
Exploratorium	601 Lyon Street	653-7337			X	2
Tom Weiss	Smith Observatory 451 Observatory Drive	468-7306	X			1

B. Planned Visits (Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)

Resource Name	Address	Phone	Acty *Level			RP	RO	CR	Est. Hours
			O	E	I				
Tom Weiss	Smith Observatory 451 Observatory Drive	468-7306		X		X			30
Don Nunez	State University Science Lab., 4917 Mountain Blvd.	351-4560	X			X			3
John DuBois	Sidewalk Astronomers' Assn., 160 Baker Street	652-2067		X		X			17

* O = Orientation; E = Exploration; I = Investigation

C. Related Reading/Research (Give Titles)

A Star Called the Sun, George Gamow

Stars, Men, and Atoms, Heinz Haber

The Revolution in Astronomy, Paul Hodge

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS (See Resource Guides. Some sites require special insurance, health certificates, etc.)

A. Prequisites

B. Materials or Equipment

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits 57 Hrs. Product Production 30 Hrs.

B. Reading 15 Hrs. Other (specify) ____ Hrs.

TOTAL HOURS 102

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT 5/1/75

PLANNED PROJECT COMPLETION DATE 6/3/75

FWL-EBCE Rev.1/76

STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 3 of 4

Student Linda Shapiro LC Rosa Knapp Project Title Space Science

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 1: Know what outer space is.					
a. In the Physical Science Project Seminar I will define what outer space is by explaining what scientists now know about it and what they still don't know about it, describing the kinds of objects in space, what they seem to be made of, and how and why they move.	4/28	Package Coordinator			
b. I will construct a model of our solar system making the sizes of the planets, moons, and sun and their distances in the correct ratios and proportions.	3/24	Tom Weiss			
c. I will observe and record the appearance and movement of Mars for three months to learn the characteristics of the planet and its position in outer space.	5/9	Tom Weiss			
GOAL 2: Know how to accurately set up and use a telescope.					
a. Same as Indicator c for Goal 1 above.					
b. I will set up and use a telescope to find and observe five objects in space named by my RP.	3/14	John DuBois			

USE AS MANY COPIES OF THIS PAGE AS ARE NECESSARY

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION

(See instructions on reverse side)

Page 4 of 4

Student Linda Shapiro LC Rosa Knapp Project Title Space Science

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 3: Analyze some of the problems facing space scientists today.					
a. I will write an essay analyzing what I consider to be the most significant problem space scientists face. In this essay I will explain why I think the problem is significant and evaluate at least two possible solutions.	5/19	Package Coordinator			
b. I will discuss with my RP some of the benefits of space research and exploration, its costs, and the question of whether money spent for this research could be better used for other projects.	5/19	John DuBois			
GOAL 4: Evaluate the requirements, advantages, and disadvantages of a career as an astronomy teacher and as a NASA scientist and how they relate to my interests.					
a. Complete Career Orientation Guides for an astronomy teacher and a space scientist. I will get information on the space scientist career by writing to two scientists at the Houston Flight Center.)	5/27	Rosa Knapp			
b. I will discuss these careers with my LC and evaluate them in terms of my interests and obstacles I may face (teaching is traditionally a woman's career and space science may not be easy for me to get into).	5/27	Rosa Knapp			

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Experience-Based Career Education	PHYSICAL SCIENCE PACKAGE GOAL CHECKLIST
STUDENT'S NAME *Linda Shapiro*	DATE 3/3/75
PROJECT TITLE *Space Science*	

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* [X] reading [ ] listening [X] observing *Communicating Information* [X] writing [ ] speaking [X] innovating
2. PROBLEM-SOLVING	*All elements*	[X] identify problem or question [X] analyze existing information [X] make your own observations [X] formulate an hypothesis [X] test hypothesis [X] organize and evaluate information
3. CAREER DEVELOPMENT	*Choose all of a* OR *two elements from b*	[X] a. investigate two careers in terms of: [X] roles and function of employee [X] relation of career to other careers [X] qualifications for entry [X] working conditions, rewards, benefits [X] current and projected demand [X] union or professional affiliations [X] effects of job on lifestyle [X] your own evaluation of the career [ ] b. develop career entrance skills in two of the following areas: [ ] obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements [ ] preparing letters of inquiry, applications and resumés [ ] preparing for and performing in interviews [ ] acquiring job-entry skills and career-related experience

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PHYSICAL SCIENCE PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from either Goal 4 or Goal 5, or you can combine elements from each as long as you select five altogether. For laboratory science credit, you must select five from Goal 4 and Goal 5 (for a total of ten).

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. PHYSICAL SCIENCE INQUIRY	*At least five elements or five comparable elements*	☐ matter ☐ chemical reactions ☐ chemicals ☐ elements ☐ compounds ☐ classification system ☐ energy ☐ measurement ☐ liquids, gases, and solids ☐ force ☒ motion ☒ heat, light, and sound *used to study planets and stars* ☐ magnetism and electricity ☐ the atmosphere ☐ mixtures and solutions ☒ the universe ☐ atoms ☐ other (specify)
5. PHYSICAL SCIENCE TECHNIQUES	*At least five elements or five comparable elements*	☐ set up and safely use standard laboratory equipment ☒ perform necessary mathematical computations ☐ accurately use a slide rule ☐ understand and use the metric system ☐ use basic statistical methods ☐ use the tables of trigonometric functions ☐ follow safety procedures and precautions for handling or mixing chemicals ☐ set up and safely use electrical and electronic laboratory equipment ☐ set up and safely use mechanical and mechanized laboratory equipment ☐ understand and use the periodic table of elements ☐ use, interpret, and represent data in tables and graphs ☐ diagram physical structures or relationships ☐ use and interpret maps, graphs, or illustrations ☒ other (specify) *(1) construct a model to scale;* ☒ *(2) set up and accurately use a telescope*

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Resources

Resource Persons

(Effective August 1975)

Gary Auerbach	Plant Chemist at the Municipal Water Pollution Control Plant. Learn to take water samples and analyze them for pollutants. Develop and apply laboratory skills.
Robert Charles	Member of the Charles Partnership, Architects and Planners. Discuss architectual planning, design, and drafting. Improve your drafting skills.
David Curry	Professor of Astronomy at the State University. Discuss careers as a science writer, editor, or science teacher. (Orientations only)
Irene Davis	Mechanic at the Fifth Wheel bicycle store. Learn how to repair, design, maintain, and sell bikes.
John DuBois	Founder of the Sidewalk Astronomers' Association and an astronomer, physicist, chemist, mathematician, and teacher. Build a telescope with his help, strengthen your skills in math, physics, or chemistry; assist him with his classes; and accompany him on field visits to give presentations at schools.
Isabel Frank	Ph.D. in physics with a special interest in developing teaching programs in astronomy at the State University Hall of Science. Discuss astronomy careers and resources. (Orientations only)
Steve Hendricks	Holder of an honorary doctorate degree for his pioneer work in nuclear chemistry and a research scientist and teacher at the University. Discuss nuclear chemistry, his research work, and careers in the field. Tour the State University Science Laboratory. Learn the basics of nuclear chemistry and develop related research skills. Learn how to assist in the daily routines of his research.
Carla Hsu	Assistant Chief of the International Airport Tower. Tour the facilities; observe monitoring of incoming and outgoing aircraft; discuss the career field; and work with different persons in the tower.
Rick Hubbard	Coordinator of the Describer Program at the Exploratorium. Tour the museum and become a "describer." Learn how to design new displays.

Mildred Johnson	In charge of laboratory analyses at Veternarians' Laboratory. Observe "bench-type" chemistry being performed on animal specimens and learn to analyze specimens yourself.
Jesse King	Chief Engineer at radio station KER. Find out how an engineer fits into the radio broadcasting industry and learn about the technical operation and maintenance of equipment at a radio station. Build your own radio station, learn how to repair equipment, or acquire a broadcast license.
Frank Lee	Partner and Architect in the firm of Lee, Chang, and Associates. Explore environmental design, and how and what buildings communicate to their occupants and users. Develop drafting skills, visit construction sites, and research building ordinances.
Harold Long	Battalion Chief with the Fire Department. Discuss and research fire-fighting techniques, use of chemicals, and the latest technology. Tour the various departments and observe and discuss equipment and procedures.
Robert Milne	Self-employed landlord, boatbuilder, and carpenter. Develop boat-designing and -building skills, use mathematics and drafting skills, and apply physics concepts to carpentry and other building projects.
Peter Nielsen	Head of the County Department of Weights and Measures. Tour the department and discuss equipment, procedures, and careers. Learn the function of measurement in physical science.
Don Nunez	Electrical Engineer at the State University Science Laboratory. Discuss electrical engineering, issues related to it, and careers in the field. (Orientations only)
Roberta Powers	Systems Analyst and Computer Programmer for the State University Science Laboratory. Discuss the development of computer programming, science, and technology and the uses of computers. Tour the Laboratory. Learn how to write and run a computer program.
Margaret Tuttle	Director of Instructional Programs at the Marine Ecological Institute. Take a cruise on the Institute's research and teaching vessel, "Bayside." Learn how to use marine measurement devices and navigational maps and charts.
Tom Weiss	Educator and Astronomer at Smith Observatory. He can introduce you to many different aspects of scientific careers and the programs in astronomy offered at Smith Observatory. Build your own telescope under his guidance.

Resource Organizations
(Effective August 1975)

Housing Authority	This agency provides low-cost housing to the community. In the Development Department, discuss and develop skills in architecture, drafting, engineering, or construction. Visit construction sites, learn to read blueprints, and learn about construction terms and tasks.
The Public Resource	A collective of men and women dedicated to making computers available to all people. Free use of computer terminals is provided by placing them in stores and libraries around the area. Learn how to maintain and service the computers, design and run programs, and do general office work.
Washburn Laboratories	A medical laboratory headed by Chief Laboratory Technologist, Frieda Gard. Develop skills in medical analysis and laboratory procedures. Learn how to determine your own blood type, recognize sickle cell or other types of anemia, and learn all phases of medical analysis from bacteriology to electrophoresis.

Community Resources

(Effective August 1975)

Exploratorium	This is an unusual science museum. Here you can experience firsthand very complicated physical phenomena.
State University	Clay Hall houses exhibits on naval architecture and science. Cruz Hall houses electrical engineering displays. The Earth Sciences Building contains the university's seismograph (the device used to measure earthquake intensity) and displays of rocks, minerals, and the fossil and geologic history of the earth. The Field Station conducts experimental research in engineering fields such as hydrodynamics, water pollution control, and sea water conversion. Two weeks' notice for a tour (groups of ten or more) is required. The Hall of Science is an educational facility that houses exhibits and equipment demonstrating some of the latest scientific discoveries. The exhibits change frequently. Films, lectures, and demonstrations are also regularly scheduled. Olsen Hall houses mechanical engineering displays. A tour is available during which you can observe a filter plant and hydraulic equipment in operation. The Science Laboratory, a research organization, has received world-wide recognition for the many scientific contributions it has made over the years. Tours, available to the public, enable you to observe some of the current experiments and other research activities being conducted and the equipment, materials, and laboratories used.

Bibliography

The following books can be found in the school or public library or at local bookstores. Most should be available in paperback. Some can probably be found in used book stores.

Adler, Irving. Thinking Machines. New York: Signet Books, New American Library, 1974.

Discusses the uses of logic and algebra in connection with today's computers and how computers work.

Asher, Harry. Experiment in Seeing. New York: Fawcett World Library, 1961.

Discusses phenomena and problems of vision and visual illusion. Describes the structure of the eye, and its relation to the brain.

Asimov, Isaac. A Short History of Chemistry, Chapters 6 and 7. New York: Doubleday & Company, Inc., 1965.

------. The Chemicals of Life. New York: Signet Books, New American Library, 1962.

About the chemicals that make up the human body and how they interact.

------. Understanding Physics: Light, Magnetism, Electricity. New York: Signet Books, New American Library, 1966.

Explains the basic concepts of physics and important discoveries.

------. Understanding Physics: The Electron, Proton, and Neutron. New York: Signet Books, New American Library, 1966.

Explains the basic concepts and important discoveries.

Bitter, Francis. Mathematical Aspects of Physics: An Introduction, Chapter 3., Garden City, N.Y.: Doubleday Anchor, Science Study Series, 1963.

An excellent demonstration of the use of data in analyzing a problem.

Bronowski, J. The Common Sense of Science. New York: Vintage Books, Random House, 1960.

Written for the non-scientist. Chapter 1, "Sensibility," shows how the sciences and the arts are complementary.

Carr, D.E. Breath of Life. New York: Berkeley Publishing Corp., 1970.

The first full report on air pollution.

------. Death of the Sweet Waters. New York: Berkeley Publishing Corp., 1971

An account of what we have done to destroy our fresh water; it suggests ways to prevent further pollution.

Cook, Lloyd M., ed. Cleaning Our Environment: The Chemical Basis for Action, Section I. Washington, D.C.: American Chemical Society, 1969.

A comprehensive but somewhat technical look at the problems of air pollution, including suggestions for cleaning up the air.

Fuller, John. The Interrupted Journey. New York: Dial Press, 1965.

Story of the abduction of an American couple aboard a UFO.

Gamow, George. A Star Called the Sun. New York: Bantam Books, 1964.

Explains the latest theories about the sun's structure and function.

Goucher, L.P. "Energy in Perspective." Chemical Technology, March, 1971.

Provides a thorough look at energy requirements of the United States until 2200 A.D. Excellent graphs. Not too technical.

Haber, Heinz. Stars, Men, and Atoms. New York: Washington Square Press, 1962.

The story of how scientists have probed the secrets of the earth and other planets.

Halacy, D.S., Jr. Beyond Tomorrow. Philadelphia: MacRae Smith Company, 1965.

------. Computers: The Machines We Think With. New York: Dell Publishing Company, Inc., Laurel Series, 1962.

Story of the fantastic devices that brought on the second Industrial Revolution.

------. Science and Serendipity. Philadelphia: MacRae Smith Company, 1967.

The role chance plays in scientific discoveries.

Henderson, Kenneth B. and Robert G. Pingry. Using Mathematics. 3rd ed. New York: McGraw-Hill Book Company, 1969.

A good source of information on the metric system, including tables and conversions.

Hill, John W. Chemistry for Changing Times. Minneapolis, Minn.: Burgess Publishing Company, 1972.

The text is centered on practical applications of a knowledge of chemistry and its relation to issues of current social importance.

Hodge, Paul W. The Revolution in Astronomy. New York: Holiday Home, 1970

The story of new instruments and new techniques that have revolutionized astronomy.

Hurley, Patrick M. How Old is the Earth? Garden City, N.Y.: Doubleday Anchor, Science Study Series, 1959.

A good, short account of geologic time, including radiologic dating.

Jaffe, B. Chemistry Creates a New World. New York: Thomas Y. Crowell Company, 1957.

Written in simple, non-technical language.

------. Crucibles: The Story of Chemists. New York: Fawcett World Library, 1966.

Describes the conquest of nuclear energy.

Kline, Morris. Mathematics and the Physical World. New York: Thomas Y. Crowell Company, 1959.

A book which discusses and explains mathematics principles and concepts in terms of their relationship to the study of nature and their role in understanding the physical world.

Little, Noel C. Physics. Lexington, Mass: D.C. Heath and Company, 1953.

A good introduction to units of measurement, significant figures, and simple dimensional analysis.

Lohberg and Lutz. Electronic Brains. New York: Bantam Books, 1964.

Pickering, James S. Windows of Space. Boston: Little, Brown & Company, 1967.

Describes telescopic astronomy and radio astronomy.

Silverberg, Robert. Scientists and Scoundrels. New York: Thomas Y. Crowell Company, 1965.

Describes scientific hoaxes.

Simak, Clifford D., ed. The March of Science. New York: Harper and Row Publishers, Inc., 1971.

Describes recent advances in various scientific fields including astronomy, physics, meterology, and ecology.

Stepp, Ann. The Story of Radioactivity. New York: Harvey House, Inc., 1971.

Discusses some of the uses and misuses of nuclear energy.

Viorst, Judith. One Hundred Fifty Science Experiments Step-by-Step. New York: Bantam Books, 1964.

Weaver, W. Science and Imagination. New York: Basic Books, Inc., 1967.

Chapters 1 through 3 are entertaining and informative views of the relationships between science and society.

Wels, Byron G. Science Fair Experiments. New York: Vertex Books, 1971.

How to plan, conduct, and display an experiment in a science fair.

Winter, Ruth. Poisons in Your Food. New York: Crown Publishers, Inc., 1969.

A disturbing account of how the food we eat is processed.

Wolff, P. Breakthroughs in Chemistry. New York: Signet Science Library, 1967.

Chapters 6 through 9 relate the research of Faraday, Mendeleev, Marie Curie, and Bohr.

In addition, the library has the latest editions of Books in Print and other bibliographical and reference materials. The library also subscribes to Scientific American and other weekly and monthly magazines and journals.

THE FAR WEST MODEL

EBCE

Experience-Based Career Education

15. Social Science

Social Science Package

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Developed Under the Direction of:

Karen M. Chatham

January 1976

Experience-Based Career Education Program
FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT
1855 Folsom Street, San Francisco, California 94103

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Table of Contents

Page

INTRODUCTION 1

PROJECT IDEAS 3

CAREERS YOU CAN EXPLORE 5

HOW TO PLAN AND COMPLETE A PROJECT 7

PROJECT SEMINARS 11

USING THE PACKAGE GOALS 13

SOCIAL SCIENCE PACKAGE GOALS 15

SOCIAL SCIENCE PACKAGE GOAL CHECKLIST 21

COURSE EQUIVALENCIES 25

SAMPLE PROJECTS 27

- Sample Project 1: Community Participation in the Public Schools 29
- Sample Project 2: The American Women's Movement: History and Current Trends 41
- Sample Project 3: The Impact of Revenue Sharing on Local Government 51
- Sample Project 4: Psychology and Teaching 61

RESOURCES

- Resource Persons 71
- Resource Organizations 75
- Community Resources 77
- Bibliography 79

Introduction

Man is by nature selfish and greedy.

* * *

People with more education make more money.

* * *

The older people get, the more conservative they get.

* * *

Blue-collar workers usually vote for Democrats.

* * *

Young people today are alienated.

The subject matter of the social sciences is people -- groups of people and people in groups. The aim of the social sciences is to understand, and in some cases to change, human behavior. Recognizing the uniqueness of individuals and events, social scientists nonetheless look for patterns of human thought, attitudes, beliefs, values, and ways of acting so that we can better understand the social environment, past and present, in which we live.

The first task of the social scientist is to accurately *describe* human behavior. This is not easy. The introductory statements above are descriptions of the nature, beliefs, or actions of groups of people. But are they "fact" or "fiction"? Can they be tested scientifically? How?

Having discovered and described patterns of people's thoughts or actions, in political, economic, social, religious, intellectual, familial, or other activities, the social scientist seeks to *explain* why groups of people and people in groups think and act as they do.

Many social scientists, and perhaps most people, are unwilling to rest with understanding *what is* or has been the nature or cause of people's beliefs and actions. To social theorists or philosophers the important questions deal with *what ought to be*, with how men and women, communities and nations, teachers and students, parents and children ought to act, and with how the social scientist's understanding of human behavior can be used to improve the human condition.

Broadening your knowledge of patterns and causes of human behavior -- using the methods and findings of sociologists, historians, political scientists, anthropologists, economists, psychologists, educators, and other social scientists -- should help you not only to understand yourself and your society, but to work more effectively toward your own personal, social, political, and economic goals.

Social science is a rapidly changing field of study and work, with new areas continually growing out of the old. For example, urban studies or urbanology is an emerging area of specialization in which social scientists apply the principles and methods of political science, economics, social psychology, and other disciplines to the study and solution of the problems of cities.

This package is designed to help you develop projects through which you can answer your own questions about the nature, causes, and effects of human behavior, past and present, while fulfilling social science credit requirements. Ideas for projects are offered throughout the package. Check the list of resources at the end for people and organizations you might work with to explore a wide variety of careers and issues related to the social sciences. Use the sample projects as models in developing your own Project Plan. The section on how to plan and carry out a project gives detailed instructions to help you get started. Your Learning Coordinator will use the package goals and requirements to determine, with you, the kind and amount of credit your project will earn. Study them before planning your project and you will be ahead of the game.

Because American government is a required area of study for all high school students, the Politics Goals (pages 18 and 19) have been developed to help you plan a project to fulfill the requirement while pursuing your own questions about government and politics.

Through your project and your participation in the Social Science Project Seminar, you should become more aware of your society and how it works, of how people behave and some of the reasons for their attitudes and actions. In the process, you should also learn more about some interesting careers within the expanding field of social science and service.

Project Ideas

The topics below suggest only a few of the issues and careers around which you can plan a project in the broad field of social science. The sample projects, beginning on page 27, offer additional ideas.

The Nation

The Watergate scandal has been with us for years. Political careers have been sacrificed to it. Public faith in the American government and those who run it is at an all-time low. The President of the United States resigned; an appointed Vice President became the leader of the nation. But has Watergate changed anything? Is American politics "cleaner"? Are we, as a political system, heading toward some sort of "renewal" process, or simply reacting to immediate problems?

The Economy

Independent American truckers across the nation recently went on strike protesting diesel fuel shortages and prices, government controls on shipping rates, and the general management of the government. Who is really responsible: U.S. oil companies; Arab oil magnates; auto manufacturers; Congress; the President? How do such things as strikes and energy shortages affect our economy? How will they affect the actions of voters and political leaders? What political or legal solutions are needed in your view? What actions are likely? Why?

The Family

"I make the money in this household, so we will go where I want to go!" "Mary wants to be a nurse and Johnny wants to be a doctor." "Your mother runs the house and I (the husband) take care of the yard." Such commonly expressed views are under serious question today. Within the family unit, the traditional roles of women and men are changing. The turmoil and conflict resulting from this change in our basic social institution -- the family -- can be seen as political. Power within the family (as elsewhere) often rests with those who have or control money or economic wealth. But there are other sources of power and authority as well. The roles and rules by which the family operates are political in nature: Who has the power? The authority? Why? How are decisions made and by whom? What are the controls on individual behavior? Politics in the family often parallel politics in large organizations and government. Alliances, trade-offs, influence, and control are all apparent within the family, as they are in the political arena. In what ways is the family not like other political units? How do families affect the political views and actions of their members?

Mental Illness

Some people say that there is no such thing as mental illness -- that it is not the individual who is sick, but society. Is this true? What is mental illness? How do different doctors, therapists, and psychiatrists define mental illness? What kinds of mental illness have been identified? What kinds of treatments are available? How effective are they? How does our society treat the mentally ill? How should they be treated? Why?

Work

Many people believe that hard work is good for you, that "idle hands are the devil's plaything." What is the purpose of work? What kinds of activities do you believe are work and what kinds do you believe are play? Do other people feel the same way? What does work contribute to the well-being of an individual? A society? Are attitudes towards work changing? How? Why?

Careers You Can Explore

There is a wide variety of traditional and emerging careers in the social sciences and services. They vary greatly in work performed and skills and training required, but all demand some understanding of the causes and effects of human behavior. Through your project, working with resources in the community, and learning more about the problems and possibilities of this field, you can explore some of these careers and learn more about your own interests and goals in the process.

anthropologist
bureaucrat
child development specialist
city clerk
city council member
city manager
congressional representative
counselor (personal, family, sex,
  drug, or other)
court clerk
court reporter
diplomat
ecologist
economist
environmentalist
ethnologist
FBI agent
geographer
government program director
historian
judge
lobbyist
mayor
museum curator
museum director
police officer
political organizer
postal employee
psychiatrist
psycholinguist
psychologist
public policy analyst
school administrator
school board member
social worker
sociologist
special agent
teacher

Also included are careers in local, state, and federal agencies such as social welfare agencies, departments of motor vehicles, departments of parks and recreation, housing authorities, departments of urban development and redevelopment, as well as employees and volunteer workers in a variety of political and social organizations and agencies.

How to Plan and Complete a Project

Your project might begin with a desire to explore a career, to dig into a social, scientific, or political problem, to work with a particular resource, or to earn credits required to graduate or to pursue your educational and career goals. Wherever you start, you will need shortly to decide what you will be doing, with whom, and what you plan to learn about or learn how to do through your project. You are essentially planning your own course of study, just as a teacher must plan a class. Your plans must be in writing so that you, your Learning Coordinator, and the resources with whom you are working all know what you hope to accomplish. Your plans will grow and change as you work on the project; make sure these changes are recorded and approved by your Learning Coordinator (LC). At a time agreed upon by you and your LC -- about one month before you plan to complete your project -- you will be asked to develop a final Project Plan which then becomes a learning contract you are promising to keep in return for the credit you seek. Below are some pointers for how to plan and complete a project. They offer a guide only. Where you will need to start and how you will proceed depends on how clear an idea you have of what you want to do. Beginning from scratch, you should do the following.

Finding a Topic

1. Read through the project ideas, sample projects, and lists of resources in the packages to find out what you can do and learn with the people and organizations who are ready to work with you.
2. Meet with your LC to discuss your interests:
    - what you want to explore -- a career, a subject, an issue, or a combination of these -- and the kinds of things you would like to learn;
    - which package you should use, who is coordinating it, and when the project seminar meets; and
    - which resources you want to or ought to contact.

3. Attend some project seminar meetings to:

   - get ideas, suggestions, and assistance in planning your project from the Package Coordinator and the other students, and

   - broaden your knowledge of careers, issues, problems, ideas, and techniques related to the package.

4. Choose some resources that interest you, plan Orientation visits using a Project Sketch, visit the resources, discuss your ideas with them, and explore possible project topics. The purpose of your Orientations should be to help you find out what you want to learn about or learn how to do, where, and with whom. NOTE: You must go beyond these brief Orientations to really plan and complete a worthwhile project. You may wish to broaden your knowledge of an issue or career by visiting several resources and working with one or two at the Exploration level. Or you may wish to dig into a subject or career and develop some expert knowledge or skills through working with one resource for an extended period of time.

Developing a Plan

5. When you have settled on an area of interest, start planning your project on a Student Project Plan. See the sample projects in this package for models. If you have trouble understanding what your project should look like on paper, see your LC and the Package Coordinator. After three or four Orientation visits to resources, you should be able to do the following (and complete the appropriate sections of the Project Plan):

   - Describe the theme of your project.

   - Pose significant questions you will investigate.

   - List the resources you have used and plan to use in completing your project. (If no resources are available in your area of interest, you may have to recruit some yourself. Ask your LC and the Resource Analyst for help.)

   - Identify related reading or other research materials you will use and how you will use them.

   - Identify special requirements or prerequisites.

   - Estimate how long your project will take.

6. After two or three more visits with your resources, you should be able to:

   - State what you want to learn about or learn how to do through your project (your goals) and how you will demonstrate you have learned it (your indicators). Pace your work by making some indicators due earlier than others. Be sure that your goals and indicators include at least one product. REMEMBER: You can change, refine, add to, or delete goals and indicators until the cutoff date decided upon by you and your LC, after which your Project Plan becomes a learning contract.

   - If you want someone in addition to your LC to evaluate your work (such as a Resource Person or the Package Coordinator), ask that person if he or she is willing to do it. Only those who have agreed to evaluate your products and/or performance should be listed as evaluators on the last page(s) of your Student Project Plan.

   - Be sure that your project will be worth the amount and type of credit you wish to receive. (With your LC, compare your project goals and indicators with the package goals using the goal checklist.) If you cannot meet the package requirements for the amount and type of credit you want with one project, do two.

   - Be sure to discuss your project topic with your resources and work with them to firm up your Plan.

Completing Your Project

7. Work with your resources, do your research and related reading, and have weekly discussions with your LC, keeping him or her informed of your interests, goals, and activities.

8. Whenever possible, relate work you are doing in workshops or other supplementary activities to your projects. (For example, bring early drafts of project reports to your English instructor or tutor to have them reviewed and critiqued.)

9. Attend project seminar meetings to give progress reports, share your experiences, get help in solving problems you encounter, and learn how other students' projects and yours are related to a common subject/career area.

10. Wrap up your project and submit it for credit by:

    - completing products and performance tests which demonstrate what you have learned. (Products can be written reports or essays, photographic essays or drawings, audio- or videotape recordings, or other media. Performance tests can be oral reports, presentations, or actual tasks at a resource site.)

- having your products and/or performance reviewed and evaluated by the persons designated on your Project Plan. (Be sure your evaluators record their assessments on the last page(s) of your Project Plan. If you agree with the evaluation, add your initials. If you disagree, state your reasons in the "Comments" column.)
- completing a Project Summary Report evaluating your own work and requesting the amount and type of credit you think you have earned through your project.

11. Turn in your Student Project Plan, product(s), and Project Summary Report to your LC for review, evaluation, and assignment of credit.

Project Seminars

One of the ways to make learning come alive is to talk about it -- to share what turns you on most, get help with problems, see if your insights make sense to others, and maybe even argue some about ideas or solutions. Project seminars are a series of meetings where students working in related subject areas can come together and rap about questions and issues common to the field they're all exploring. The meetings can be useful in a number of ways.

- First, they can help you with ideas for projects. If you don't already have one, listening to other students kick around their interests may trigger an idea of your own, some direction you hadn't thought of. If you do have a project in mind, these discussions can help you clarify and focus it, plus give you some good leads for resources to visit.

- You can't be sure what you know or how well you know it until you try to explain it to someone else. Testing your findings on others, bouncing ideas or conclusions off them, and describing particular experiences can help you get a firmer grasp on what you're learning. You may find you know more than you thought or see that some of your answers need rethinking.

- Through your own project, you will be able to explore only some of the interesting ideas, techniques, issues, and careers related to this package. Your fellow students will have the same problem. But together, in the project seminars, you can learn from each other's research and experiences, thus expanding your knowledge of the field in general.

- In the same way, talking with guest speakers, viewing films, or visiting relevant community resources as a group will broaden your understanding of the discipline and related careers.

- Project seminars provide a resource you can tap to solve problems encountered in carrying out your project. If you're having trouble working with a particular Resource Person, finding sources of information about your topic, or deciding what kind of product will best communicate your findings, other students and the Package Coordinator can help you analyze alternatives and find a solution.

- Finally, you may discover that some students share your interests and concerns and would like to combine talents and energies into a group project. Working jointly you can sometimes tackle bigger problems and cover more ground.

Using the Package Goals

The goals on the following pages outline some important kinds of learning which should be included in your project. They are meant to stretch your imagination and to help you develop a worthwhile Plan, not to confine your thinking. Minimum requirements for a project are given, so that you and your Learning Coordinator have standards for judging whether your project is roughly equal in amount of work to a class in the subject. These goals and requirements are broadly stated to allow you great freedom in deciding exactly what you will learn, with whom, how you will demonstrate your new knowledge or skills, and who will evaluate your work.

When you have drafted your Project Plan, compare it with the package goals and requirements. You can use the goal checklist to make certain your Plan is complete. If you have trouble understanding the goals or how to use them, ask your Learning Coordinator for help.

Social Science Package Goals

GOAL 1: BASIC SKILLS (Required)

You should practice and improve your basic skills by using at least one method of acquiring and one method of communicating information in the course of your project.

ACQUIRING INFORMATION (choose one)

- Reading: You should be able to read critically and comprehend newspaper and magazine articles, books, or other materials pertinent to your project.
- Listening: You should be able to listen effectively and critically to speeches, lectures, radio and television broadcasts, and other commentaries related to your project.
- Observing: You should be able to acquire information from and interpret events, films, or television programs pertinent to your project.

COMMUNICATING INFORMATION (choose one)

- Writing: You should be able to clearly express in writing information and ideas relevant to your project.
- Speaking: You should be able to communicate orally your own ideas, thoughts, and feelings.
- Innovating: You should be able to communicate ideas or findings using nonverbal means -- for example, through making photographs or films, graphic illustrations, or models.

GOAL 2: PROBLEM-SOLVING (Required)

You should expand your problem-solving skills by thoroughly investigating a significant question, problem, or issue in the field of social science. To do so, you should:

- Define the problem or issue. (Why is it important? Who does it affect? What are some of its causes?)
- Identify sources of information to learn more about the subject (people, books, magazine articles, government agencies).
- Use appropriate methods for gathering data (interviewing, observing and recording, reading, survey research, experimenting with different techniques or solutions).
- Organize the information obtained. (Tally, summarize, compare, analyze, or synthesize your findings.)
- Evaluate proposed solutions. (Which solutions are most desirable from your viewpoint? Why? Which are most feasible in terms of time, cost, human nature, or other factors? Why?)

GOAL 3: CAREER DEVELOPMENT (Choose a or b)

a. You should learn enough about two careers in the field of social science to evaluate them in terms of your own interests, goals, and abilities. Your research should include the following:

- The roles and functions of an employee.
- The relation of the career to other careers.
- The qualifications and routes for entry.
- The working conditions, rewards, and benefits of the career.
- The current and projected demand in the field.
- Union or professional affiliations that are desirable or necessary.
- The effect of the job on one's lifestyle.
- Your own evaluation of the career.

b. You should develop career entrance skills in two of the following areas:

- Obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements.
- Preparing letters of inquiry, applications, and resumés for employment or school entry.
- Preparing for and performing effectively in employment or other admissions interviews.
- Acquiring job-entry skills and experience in a chosen career field.

Social Science Package Goals (continued)

Through a social science project, you can choose to increase your knowledge of concepts and principles in the field (Goal 4), your ability to use specific techniques (Goal 5), or you can learn both principles and techniques by selecting some elements from each goal for a total for five.

GOAL 4: SOCIAL SCIENCE INQUIRY (Choose five)

Through your study and research you should learn about and show you can use at least five of the concepts or principles listed below.

- Institutions: Why do political, economic, and social institutions develop? What forms do they take? Does every society have the same kinds of institutions? How does the formal structure of an institution (e.g., the family, a school) compare with the way it actually operates?
- Social Groups: What are primary groups? Secondary groups? What groups do you and your parents belong to, formally and informally? Are different kinds of behavior expected by different groups? How much control do different kinds of groups have over their members? Why? What mechanisms do groups use to control individual behavior?
- Status: How is status assigned to different persons or roles within a school, a factory, a community? How does a person change his or her status? What are the effects of one's status on his or her behavior? On the behavior of others?
- Socialization: What are the mechanisms within societies, groups, and organizations by which people learn social rules and roles? To what extent do different groups and institutions reinforce or contradict what and how they teach their members?
- Culture: How do you describe the culture of a society or group? What does it include? Is there an American culture? What are its distinguishing features? How are cultural beliefs represented in a society's mythology or folklore? How do beliefs about the nature and purpose of life affect other aspects of a group's culture? How are cultural differences and conflicts represented or resolved in this society? In other societies?
- Ethnic Group: What distinguishes one ethnic group from another? How important is your ethnic heritage to your own identity? The United States is unique in that it is made up of so many diverse ethnic groups; how has this affected our culture and society (and your own life)?
- Objectivity/Subjectivity: What does it mean to be "objective" or "subjective"? Can a social scientist be objective? Could you objectively research and report the history of women's rights in the United States? What are some ways of ensuring greater objectivity in social research and reporting?
- Perception: How often have you heard two witnesses give different descriptions of the same event? Why do peoples' perceptions differ? Can you know anything except through your senses? How do perceptions affect the way people behave and communicate?
- Quantitative Analysis: How can numbers and statistics help one learn about human behavior? Can one really quantify (i.e., count) personality characteristics such as motivation? What would you gain and lose by studying human behavior without using numbers?
- Motivation: What is motivation? How do one's values and needs affect his or her motivation? Are there different kinds of motivation? How does motivation affect learning? How does motivation affect behavior?
- Cause and Effect: Does the fact that more smokers than nonsmokers get lung cancer mean that smoking causes cancer? Does the fact that many poor people suffer from malnutrition mean that poverty causes malnutrition? Or vice versa? How does one distinguish a simple association (correlation) from a cause-and-effect relationship? Can you understand and predict behavior without knowing its causes? Why?
- Attitudes: How are attitudes formed? Do political campaigners often change your attitudes toward important issues? Do salespeople change your attitude toward their products? Why or why not? What are the most effective ways to change people's attitudes? How do your attitudes affect your behavior, the ways you relate to people, or your stand on social issues?
- Values: What do you care most about? How do your values compare with those of your fellow students, parents, teachers, and Resource Persons? Why do different people value different things? Do a person's values usually change? Why? How do values affect the choices a person makes? The choices a society makes? What happens when a person or a society is faced with choices involving conflicting values?
- Roles: What kinds of behavior are expected of a teacher, a student, an employee, a supervisor, a mother, a child, a soldier, a hunter? How are roles defined? Do you ever find yourself "playing a role"? Why? How is the role of an employee the same or different in different kinds of organizations? Are the roles of women changing? How? Why? Do different groups or societies define roles differently? Why?
- Needs: What are the physical needs of human beings? Are some psychological needs basic and others created? If so, why and how are needs created? Do different people have different needs? In what way? Why? How do a person's needs affect his or her behavior, values, and attitudes?
- Other (specify).

Social Science Package Goals (continued)

GOAL 5: SOCIAL SCIENCE TECHNIQUES (Choose five)

If you want to focus your project on acquiring some of the skills and techniques used in the social sciences, you will need to work closely with your resources and Learning Coordinator to identify at least five specific skills you will work on and demonstrate through your project. The list below provides some examples. (You may choose five of these to work on, identify five comparable skills, or combine elements from the Social Science Inquiry or Politics Goals with these for a total of five.)

- Conducting survey research (to determine the characteristics of a particular group of people, to learn how a group of people intends to vote, or to determine use of space and time).
- Analyzing statistical data to determine patterns or predict outcomes.
- Planning and conducting case studies.
- Systematically observing and recording individual and group behavior.
- Making comparative analyses (of behavior, lifestyles, cultures, political systems).
- Analyzing organizations, institutions, or informal groups in terms of their structure and functions.
- Designing and administering interview schedules.
- Describing and analyzing behavior.
- Contributing to group efforts.
- Resolving interpersonal conflicts.
- Displaying data with appropriate tables and graphs.
- Designing and conducting experiments.
- Researching and interpreting different types of historical records.
- Other (specify).

Obviously, it could take years to become expert in some of the above. If you wish to specialize and earn credit in a particular skill area, such as statistics, you will be expected to meet the performance standards for that subject generally employed in your school or district, or demonstrate entry-level job skills.

Social Science Package — Politics Goals

The Politics Goals which follow provide guidelines if you desire credit in American government or elective political science subject areas. (They should be used in place of the Social Science Inquiry goal.) If you are completing the requirement for study in American government, you may focus your project on learning more about the American political system and how it works, or learning some of the essential concepts used in political inquiry. You may also choose to combine elements from each of these goal areas, and from the Social Science Techniques goal, in developing your own project goals and indicators.

A. AMERICAN GOVERNMENT/POLITICS (Choose five)

You should increase your understanding of your political environment, effects of government policies and activities on your daily life, and means by which you or others can influence government actions. The following list of examples provides you with elements that you might choose to include in your politics project. You should show you understand and can use at least five of the following, or five comparable elements agreed upon by you and your Learning Coordinator.

- Power relationships between federal, state, and local governments.
- Relationships between the agencies of government which make, administer, and interpret laws.
- Your rights and obligations as a citizen.
- Ways your daily life is affected by government actions.
- Sources of political power and some of the major power-holding individuals, organizations, and groups in the United States.
- Purposes, methods, and achievements of interest groups, political movements, and political parties.
- Relative effectiveness of a variety of ways you or other citizens can influence government actions.
- Values and other factors influencing the political participation of individuals and groups.
- Formal and informal rules governing politics in the United States.
- Major trends in the contemporary American political environment.
- Other (specify).

Social Science Package — Politics Goals (continued)

B. POLITICAL INQUIRY (Choose five)

You should increase your understanding of various concepts as tools for use in studying politics and expanding your knowledge of the political environment. The following list of examples will help you in determining your own goals and building a project that reflects your interests. You should demonstrate understanding of at least five of the following, or five comparable concepts agreed upon by you and your Learning Coordinator.

- Power: What is it? What forms does it take? How is it obtained? How can people use their power as voters, union members, police, or government officials? How do they?
- Law: Why do societies have laws? How is a law made? Should all laws be obeyed? What are the personal and social consequences of disobedience? How do laws affect your life in school, job-hunting, or travel?
- Authority: What is it? How does it differ from power? How is authority acquired? Where do parents, teachers, or police obtain the authority to tell you what, when, and how to do or not do something?
- Public Opinion: What is it? How does it differ from power? What effect does it have on government or political actions? How do the actions of the President affect public opinion? How do the media affect public opinion?
- Political Participation or Behavior: What types of participation are possible for individuals and groups? What determines or influences how, or whether, people participate politically? Do you, your parents, or your friends work to achieve things that you would like to see happen in your community (i.e., more parks, better traffic rules, a cleaner environment)? Why or why not?
- Freedom: Are there different kinds of freedom? Does increasing freedom for some decrease it for others? What limits should be placed on individual freedom? Why? How?
- Political Socialization: What are mechanisms in our society or other societies by which people learn political rules and roles? How do your parents' political views and actions affect your own? What kind of educational system and process is best for a democracy? Why?
- Political Institutions: What are the major kinds and what official forms do they take? How do their practical structures and roles for members differ from their official form? For example, what does it mean to be a member of a political party? For a citizen? For a politician? Does party membership have different meanings in different countries? Why?
- Democracy: What are the assumptions on which democratic systems are based? How do democracies work, in theory and in practice? What qualifications should voters have? Why? What qualifications should political candidates have? Why? What is the role of political parties in a democracy?
- Political Recruitment: How are party members, political activists, candidates, party elites, and office-holders recruited into these roles and positions? What are the formal rules of the political system governing this process? What other factors influence the selection of leaders and office-holders?
- Equality: What does political equality mean? How is it related to economic equality? Does equal opportunity lead to equal results? Why or why not? Which is most important? Why?
- Other (specify).

Experience-Based Career Education		SOCIAL SCIENCE PACKAGE GOAL CHECKLIST
STUDENT'S NAME		DATE
PROJECT TITLE		
GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* ☐ reading ☐ listening ☐ observing *Communicating Information* ☐ writing ☐ speaking ☐ innovating
2. PROBLEM-SOLVING	*All elements*	☐ define the problem or issue ☐ identify sources of information ☐ use appropriate methods for gathering data ☐ organize the information obtained ☐ evalute proposed solutions
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	☐ a. investigate two careers in terms of: ☐ roles and function of employee ☐ relation of career to other careers ☐ qualifications for entry ☐ working conditions, rewards, benefits ☐ current and projected demand ☐ union or professional affiliations ☐ effects of job on lifestyle ☐ your own evaluation of the career ☐ b. develop career entrance skills in two of the following areas: ☐ obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements ☐ preparing letters of inquiry, applications and resumés ☐ preparing for and performing in interviews ☐ acquiring job-entry skills and career-related experience

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SOCIAL SCIENCE PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from Goal 4 or 5, or you may combine elements from each as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. SOCIAL SCIENCE INQUIRY	*At least five elements or five comparable elements*	[ ] institutions [ ] social groups [ ] status [ ] socialization [ ] culture [ ] ethnic group [ ] objectivity/subjectivity [ ] perception [ ] quantitative analysis [ ] motivation [ ] cause and effect [ ] attitudes [ ] values [ ] roles [ ] needs [ ] other (specify) ____________
5. SOCIAL SCIENCE TECHNIQUES	*At least five elements or five comparable elements*	[ ] conducting survey research [ ] analyzing statistical data [ ] planning and conducting case studies [ ] observing and recording behavior [ ] making comparative analyses [ ] analyzing structure and functions [ ] designing and administering interview schedules [ ] describing and analyzing behavior [ ] contributing to group efforts [ ] resolving interpersonal conflicts [ ] displaying data with tables and graphs [ ] designing and conducting experiments [ ] researching and interpreting historical records [ ] other (specify) ____________

Experience-Based Career Education	SOCIAL SCIENCE PACKAGE - POLITICS GOAL CHECKLIST *(to be used if Government credit is desired)*

STUDENT'S NAME DATE

PROJECT TITLE

You may select five elements from A or B or you can combine elements from each and from Social Science Goal 5 as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
A. AMERICAN GOVERNMENT/ POLITICS	*At least five elements or five comparable elements*	☐ power relationships between government levels ☐ relationships between government agencies ☐ your rights and obligations as a citizen ☐ ways your life is affected by government actions ☐ sources of political power ☐ interest groups, political movements, and political parties ☐ ways of influencing government action ☐ values and other factors influencing political participation ☐ formal and informal rules of U.S. politics ☐ major trends in the political environment ☐ other (specify) ____________
B. POLITICAL INQUIRY	*At least five elements or five comparable elements*	☐ power ☐ law ☐ authority ☐ public opinion ☐ political participation or behavior ☐ freedom ☐ political socialization ☐ political institutions ☐ democracy ☐ political recruitment ☐ equality ☐ other (specify) ____________

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Course Equivalencies

One of your concerns in developing a project should be earning credits you need for graduation. Depending on the focus of your project within the broad field of social science, you may earn credit in any of these subject areas.

African Studies
American Government
Anthropology
Asian Studies
Black History and Culture
Comparative Civilizations
Comparative Governments
Current Affairs
Economics
English
European History
International Relations
Latin America
Marriage and Family
Mexican-American History and Culture
Minorities in America
Psychology
Sociology
United States History
Urban Studies
World Cultures
World History and Geography

Your Learning Coordinator will help you determine how much and what kind of credit you will earn when you complete your project. Your LC will also help you, if necessary, develop or expand your Project Plan to earn the type of credit you desire.

Sample Projects

What does a good Project Plan look like? The samples on the following pages show projects, each worth 5 or 10 credits, focusing on different topics, issues, and careers. Browse through them for ideas. Look at them when planning your own project to see how to write goals and indicators. Use them to trigger ideas of your own, and as concrete examples of the kinds of things you can do with the resources available. By changing it to suit your interests, you can even take one of the sample projects and make it your own.

Sample Project 1

Community Participation in the Public Schools

The purpose of this project is to investigate how the community participates in making decisions affecting the public schools. When does the community become involved, how, and why?

- Visit the school district's administrative offices and its department of community services to find out what kinds of community groups participate in school activities and policy decisions.
- Attend meetings of some of the active groups in your community. Interview their members to learn what their educational concerns are and what action they are trying to take. What do they believe should be their role in the school district's decision-making process?
- Investigate a current school issue in which community groups have expressed concern. What is at issue? Why? What is the district's stand? What are some of the opposing viewpoints? How and why do they differ?
- Interview some representatives of teacher organizations about the issue to learn their viewpoint.
- Attend school board meetings to determine whether the members of the board have the same or similar concerns. What is their viewpoint? How do they view community participation in the schools?

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect you interests and available resources, or write new ones to guide and document your activities.

Experience-Based Career Education

PROJECT SKETCH

Use this form to plan your resource Orientations. Obtain your Learning Coordinator's approval before visiting a resource.

STUDENT Steve Pererra LC Paul Smith DATE 9/20/75

I. AREA OF INTEREST ***(List the specific career, subject, or issue area you want to explore as a possible project)***

the local school system

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. How do people get involved in local school politics?
2. What power do community people have in influencing the actions or decisions of the schools?
3. Do the schools reflect the needs and concerns of the community? What are some of those needs and concerns?
4.
5.
6.

III. WHAT RESOURCES WILL YOU USE?

[✓ RP]/RO/CR ***(Circle one)*** Janice Bender **Phone** 683-0991
Address American Teachers' Federation (ATF), 1236 Fourth Street

RP/RO/[✓ CR] ***(Circle one)*** School Board Meetings **Phone** 683-2622
Address Administration Building, 1025 Fourth Street

RP/RO/CR ***(Circle one)*** ____ **Phone** ____
Address ____

OTHER RESOURCES ***(Give name of person or title and author of books, articles, etc.)***

Social Science Package Coordinator

I HAVE READ THE RESOURCE GUIDE(S) ☒ **Yes** ☐ **No** **(If not, give reasons)**

APPROVED BY LC Paul Smith DATE 9/20/76

LC FOLLOW-UP	☒ **The student has decided to do a project in this interest area.** ☐ **The student has decided not to pursue this interest further because:**

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

Distribution:* *Original (White) - LC; Yellow - Student; Pink - Resource Analyst

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Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT Steve Pererra PROJECT NO. 1 PACKAGE Social Science

LC APPROVAL Paul Smith DATE 10/5/75 DATE PROJECT STARTED 9/20/75

TECHNICAL ADVISOR(S) *(If any)* ____

I. PROJECT DESCRIPTION

A. *Title* Community Participation in the Public Schools

PLANNED CREDITS		EBCE Credits
Subject Area(s)	1. American Government	5
	2. Urban Studies	5
	3.	

B. *Theme* *(Please give a brief description of your project)* I plan to investigate the school system from the perspective of the community it serves. I am interested in learning the kinds of power and influence different segments of the community have within the school system. I will survey a representative cross-section of the community to assess the community's attitude toward its participation in school affairs.

C. *Questions to be Investigated:*

Who runs the schools: teachers, parents, taxpayers, the school board, the administration, students? How are decisions made and by whom? What kinds of mechanisms exist for community participation? Are they effective? Why or why not? Can they be made more effective? How? Do different community groups agree on how the schools should be run? Do different groups make different demands on the schools? What are their demands? Why are they different? Can the different interests, concerns, and viewpoints of these groups all be satisfied? How? Should they all be satisfied?

FOR LEARNING COORDINATOR USE ONLY

Mid-Term Review	*Initials*	*Date*	*End-of-Term Review*	*Initials*	*Date*

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993

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STUDENT PROJECT PLAN	Page 2 of 5

II. IDENTIFICATION OF RPs, ROs, & CRs

A. Completed Visits (Identify resources already visited for Orientation)

Resource Name	Address	Phone	RP	RO	CR	Hours Spent
Janice Bender	American Teachers' Federation, 1236 4th St.	683-0991	X			5
School Board Meetings	Administration Building 1025 4th Street	683-2622			X	3
County Board of Supervisors	683 Maple Avenue Room 60	381-2658			X	5

B. Planned Visits (Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)

Resource Name	Address	Phone	Acty *Level			RP	RO	CR	Est. Hours
			O	E	I				
Janice Bender.	American Teachers' Federation, 1236 4th St.	683-0991			X	X			35
School Board Meetings	Administration Building 1025 4th Street	683-2622		X				X	17
Jeanne Hayashi	Irving Elem. School 4062 Walton Street	834-1492	X			X			5
City Council	3816 Buchanan Room 800	748-3278	X					X	8
George Dietrich	City Manager's Office 3816 Buchanan Street	748-3261	X			X			10

* O = Orientation; E = Exploration; I = Investigation

C. Related Reading/Research (Give Titles)

How to Change the Schools: A Parents' Action Handbook on How to Fight the System by Ellen Lurie; The School Book by Neil Postman and Charles Weingartner

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS (See Resource Guides. Some sites require special insurance, health certificates, etc.)

A. Prequisites ______

B. Materials or Equipment ______

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits 88 Hrs. Product Production 20 Hrs.

B. Reading 20 Hrs. Other (specify) survey research and interviews 20 Hrs.

TOTAL HOURS 148

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT 12/20/76

PLANNED PROJECT COMPLETION DATE 1/26/76

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION

(See instructions on reverse side)

Page 3 of 5

Student Steve Pererra **LC** Paul Smith **Project Title** Community Participation in the Public Schools

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 1: Understand the roles and power of different segments of the community in school decisions and operations.					
a. Analyze the roles and power of five community groups (such as the PTA, the ATF, student governments, the administration, and the school board) in a written report.	12/19	Package Coordinator			
b. Identify segments of the community which do not participate in school decisions or operations and explain the causes for this lack of participation.	12/19	Package Coordinator			
c. Evaluate five major mechanisms for community participation (such as teacher strikes, presenting views at board meetings, and presenting views at PTA meetings) that now exist, in terms of effectiveness and availability to all members of the community, in my report.	12/19	Package Coordinator			
d. Suggest two practical ways to enable more members of the community to participate or make the existing mechanisms more effective, and describe how my proposed changes could be made.	12/19	Package Coordinator			
GOAL 2: Evaluate the major educational concerns of the community and of school officials.					
a. Summarize three recent concerns expressed publicly by members of the school board,	1/9	Package Coordinator			

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 4 of 5

Student Steve Pererra **LC** Paul Smith **Project Title** Community Participation in the Public Schools

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
the city council, the city manager's office, and the county board of supervisors in an oral presentation to the Social Science Project Seminar.					
b. Construct an interview questionnaire for a survey of the opinions of a sampling of students, teachers, administrators, and parents regarding the three issues.	11/3	Package Coordinator			
c. Compile, analyze, and graphically represent my survey findings and explain them in the project seminar.	1/9	Package Coordinator			
d. Compare the positions of school and city officials with those of the PTA, ATF, and the student government and with the opinions of students, teachers, and administrators as shown by my survey.	1/9	Package Coordinator			
GOAL 3: Understand how decisions are made in my school district.					
a. Chart the steps involved and identify the people who had an effect on a recent significant decision made in the district.	1/16	Janice Bender			
b. On this chart I will note factors that may have influenced the individuals and groups involved, such as education, social position, and work experience.	1/16	Janice Bender			
(continued on next page)					

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 5 of 5

Student Steve Pererra LC Paul Smith Project Title Community Participation in the Public Schools

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 4: Compare careers in education and government.					
a. Complete Career Orientation Guides for a high school government teacher and a city manager.	1/26	Paul Smith			
b. Discuss with my LC the advantages and disadvantages of each, which I prefer, and why.	1/26	Paul Smith			

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***Experience-Based* Career Education**	SOCIAL SCIENCE PACKAGE GOAL CHECKLIST

STUDENT'S NAME Steve Pererra DATE 10/5/75

PROJECT TITLE Community Participation in the Public Schools

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* ☒ reading ☒ listening ☐ observing *Communicating Information* ☒ writing ☒ speaking ☒ innovating
2. PROBLEM-SOLVING	*All elements*	☒ define the problem or issue ☒ identify sources of information ☒ use appropriate methods for gathering data ☒ organize the information obtained ☒ evalute proposed solutions
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	☒ a. investigate two careers in terms of: ☒ roles and function of employee ☒ relation of career to other careers ☒ qualifications for entry ☒ working conditions, rewards, benefits ☒ current and projected demand ☒ union or professional affiliations ☒ effects of job on lifestyle ☒ your own evaluation of the career ☐ b. develop career entrance skills in two of the following areas: ☐ obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements ☐ preparing letters of inquiry, applications and resumés ☐ preparing for and performing in interviews ☐ acquiring job-entry skills and career-related experience

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SOCIAL SCIENCE PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from Goal 4 or 5, or you may combine elements from each as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. SOCIAL SCIENCE INQUIRY	*At least five elements or five comparable elements*	☐ institutions ☐ social groups ☐ status ☐ socialization ☐ culture ☐ ethnic group ☐ objectivity/subjectivity ☐ perception ☐ quantitative analysis ☐ motivation ☐ cause and effect ☐ attitudes ☐ values ☐ roles ☐ needs ☐ other (specify) ______
5. SOCIAL SCIENCE TECHNIQUES	*At least five elements or five comparable elements*	☒ conducting survey research ☐ analyzing statistical data ☐ planning and conducting case studies ☐ observing and recording behavior ☒ making comparative analyses ☐ analyzing structure and functions ☒ designing and administering interview schedules ☐ describing and analyzing behavior ☐ contributing to group efforts ☐ resolving interpersonal conflicts ☒ displaying data with tables and graphs ☐ designing and conducting experiments ☐ researching and interpreting historical records ☐ other (specify) ______

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Experience-Based Career Education	SOCIAL SCIENCE PACKAGE - POLITICS GOAL CHECKLIST *(to be used if Government credit is desired)*

STUDENT'S NAME Steve Pererra DATE 10/5/75

PROJECT TITLE Community Participation in the Public Schools

You may select five elements from A or B or you can combine elements from each and from Social Science Goal 5 as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
A. AMERICAN GOVERNMENT/ POLITICS	***At least five elements or five comparable elements***	☐ power relationships between government levels ☐ relationships between government agencies ☐ your rights and obligations as a citizen ☐ ways your life is affected by government actions ☐ sources of political power ☒ interest groups, ~~political movements, and political parties~~ ☒ ways of influencing government action ☒ values and other factors influencing political participation ☐ formal and informal rules of U.S. politics ☐ major trends in the political environment ☒ other (specify) decision-making process at the institutional level ☒ current issues in education
B. POLITICAL INQUIRY	***At least five elements or five comparable elements***	☒ power ☐ law ☐ authority ☒ public opinion ☒ political participation or behavior ☐ freedom ☐ political socialization ☐ political institutions ☐ democracy ☐ political recruitment ☐ equality ☐ other (specify) ______

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Sample Project 2

The American Women's Movement: History and Current Trends

How did the women's movement begin? What changes has it brought about? What do leaders of the movement today hope to accomplish? This project is an in-depth study of the organized movement for women's rights that began in the late 1800's and has recently gained new support and interest.

- There are two nationwide organizations that can provide considerable information about the women's movement past and present: the National Organization for Women and the League of Women Voters. The League is one of the oldest organizations for women; NOW was begun in the mid-1960's. Visit their local offices to find out what issues are of concern now and what is being done about them. For information about the history of the movement you may have to write to the national headquarters of these two organizations.
- Work with a Resource Person who can help you plan your historical research and locate appropriate sources and materials. An historian, a librarian, or a history teacher could help.
- Visit the public library, your school library, and libraries of colleges in your area to locate sources of information about the social, political, and legal history of women's rights and roles in this country.
- Local organizations concerned with protecting the rights of women in their community are springing up across the country. If there is one in your city, find out what it is trying to do and the social and political issues it is concerned with.

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect your interests and available resources, or write new ones to guide and document your activities.

Experience-Based Career Education

PROJECT SKETCH

Use this form to plan your resource orientations. Obtain your Learning Coordinator's approval before visiting a resource.

STUDENT *Craig Peterson* LC *Paul Smith* DATE *2/6/75*

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

the women's movement

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. *What is the women's movement?*
2. *How well organized is it?*
3. *When did the movement begin? Who started it and why?*
4. *What were women trying to accomplish 60 years ago? What are they trying to do today?*
5.
6.
7.

III. WHAT RESOURCES WILL YOU USE?

RP/RO/[✓ CR] *(Circle one)* *National Organization for Women* Phone *467-6727*
Address *5912 24th Street*

RP/[✓ RO]/CR *(Circle one)* *Action for Women* Phone *462-4299*
Address *132 Market Street*

[✓ RP]/RO/CR *(Circle one)* *Ella Harris* Phone *564-9920*
Address *Clay Books, 8040 Park Boulevard*

OTHER RESOURCES *(Give name of person or title and author of books, articles, etc.)*

Municipal Public Library

I HAVE READ THE RESOURCE GUIDE(S) ☒ Yes ☐ No (If not, give reasons)

APPROVED BY LC Paul Smith DATE 2/6/75

LC FOLLOW-UP

☒ The student has decided to do a project in this interest area.
☐ The student has decided not to pursue this interest further because:

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

Distribution: Original (White) - LC; Yellow - Student; Pink - Resource Analyst

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Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT Craig Peterson PROJECT NO. 2 PACKAGE Social Science

LC APPROVAL Paul Smith DATE 2/14/75 DATE PROJECT STARTED 2/6/75

TECHNICAL ADVISOR(S) *(If any)*

I. PROJECT DESCRIPTION

A. *Title* The American Women's Movement: History and Current Trends

PLANNED CREDITS		EBCE Credits
Subject Area(s)	1. U.S. History	5
	2. American Government	5
	3.	

B. Theme (Please give a brief description of your project) I plan to study the history of the women's movement and the relationship of the early movement to the present struggle of women in America. I intend to learn about laws that affect women's status, and explore ways that women can achieve equal rights.

C. *Questions to be Investigated:*
What is oppression? What forms can it take? What are the current roles and status of women in American society? How and why have women's roles and status changed over time? In what ways were women of the past more oppressed than women of today? How, if at all, have the demands of the women's movement changed over time? What happened to the women's movement in the 1920's? What were the various reactions of men and husbands to the movement then? What kinds of tactics did women use to win early rights and what rights did they win? What kinds of laws were women oppressed by? Do any of these laws remain on the books today? What is the most difficult problem the movement faces today?

FOR LEARNING COORDINATOR USE ONLY

Mid-Term Review	Initials	Date	End-of-Term Review	Initials	Date

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STUDENT PROJECT PLAN — Page 2 of 4

II. IDENTIFICATION OF RPs, ROs, & CRs

A. Completed Visits *(Identify resources already visited for Orientation)*

Resource Name	Address	Phone	RP	RO	CR	Hours Spent
National Organization for Women	5912 24th Street	467-6727			X	2
Action for Women	132 Market Street	462-4299		X		2
Ella Harris	Clay Books 8040 Park Boulevard	564-9920	X			3

B. Planned Visits *(Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)*

Resource Name	Address	Phone	Acty *Level			RP	RO	CR	Est. Hours
			O	E	I				
Ella Harris	Clay Books 8040 Park Boulevard	564-9920		X		X			20
League of Women Voters	568 Jackson Street	467-8361	X					X	10
National Organization for Women	5912 24th Street	467-6727	X					X	5
Action for Women Renee Fields	132 Market Street	462-4299		X			X		15
Municipal Public Library	1512 8th Street	732-1222		X				X	10

* *O = Orientation; E = Exploration; I = Investigation*

C. Related Reading/Research *(Give Titles)* The U.S. Constitution, Paul McCloskey; Up From the Pedestal: Selected Writings in the History of American Feminism, Aileen Kraditor; Women and Work in America, Voices From Women's Liberation, Leslie B. Tanner; The ERA: What It Means to Men and Women, League of Women Voters; Constitution of the United States of America, Government Printing Office.

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS *(See Resource Guides. Some sites require special insurance, health certificates, etc.)*

A. Prequisites none

B. Materials or Equipment none for what I am doing

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits 67 Hrs. Product Production 30 Hrs.

B. Reading 50 Hrs. Other (specify) ____ Hrs.

TOTAL HOURS 147

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT 3/31/75

PLANNED PROJECT COMPLETION DATE 5/9/75

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 3 of 4

Student Craig Peterson **LC** Paul Smith **Project Title** The American Women's Movement: History and Current Trends

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 1: Investigate, using at least 3 types of records (e.g., chronicles, biographies, memoirs, paintings, films, song lyrics), and summarize the history of the women's movement in the U.S.					
GOAL 2: Analyze the constitutional history of women's rights.					
GOAL 3: Understand some of the historical events that have helped change the roles and rights of American women.					
GOAL 4: Evaluate the careers of political organizer and historian.					
GOAL 5: Understand both social and political influences on the women's movement.					
INDICATORS					
a. Prepare a summary of current kinds of laws that affect women's rights. (Goals 1, 2, and 5)	3/3	Renée Fields			
b. Prepare an analysis of Supreme Court decisions affecting women's rights; show how these decisions reflect trends or periods in the orientation of the Supreme Court. (Goals 1, 2, and 5)	3/3	Ella Harris & Renée Fields			
c. Explain to the Social Science Project Seminar the purpose of the equal rights amendment, the effects it will have on	3/10	Package Coordinator			

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 4 of 4

Student Craig Peterson **LC** Paul Smith **Project Title** The American Women's Movement: History and Current Trends

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
women's rights if ratified, and the methods being used by groups to support or oppose its ratification. (Goals 1, 2, and 5)					
d. Analyze popular songs of the 1920s, 1930s, 1940s, 1950s, and 1960s (look at a minimum of five songs of each decade) whose lyrics relate to the roles or rights of women; make judgments about the social climate regarding women's rights in each decade. (Goals 1 and 5)	3/31	Package Coordinator			
e. Summarize for members of the Social Science Project Seminar five events in the history of the U.S. that significantly affected women's rights, explaining how and why. (Goals 1 and 3)	4/14	Package Coordinator			
f. Using information obtained, write a report on the history of women's rights in the U.S., including: a comparison of the women's movement in the late 19th and early 20th century with the current movement, a summary of significant events, and my judgment (with my reasons) of the future of women's rights in the next 50 years. The report will be written as a publishable historical essay. (Goal 1)	4/28	Ella Harris			
g. Complete Career Orientation Guides on the careers of historian and political organizer.	5/5	Paul Smith			

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Experience-Based Career Education

SOCIAL SCIENCE PACKAGE GOAL CHECKLIST

STUDENT'S NAME Craig Peterson DATE 2/14/75

PROJECT TITLE The American Women's Movement: History and Current Trends

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* [X] reading [X] listening [ ] observing *Communicating Information* [X] writing [X] speaking [ ] innovating
2. PROBLEM-SOLVING	*All elements*	[X] define the problem or issue [X] identify sources of information [X] use appropriate methods for gathering data [X] organize the information obtained [X] evalute proposed solutions
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	[X] a. investigate two careers in terms of: [X] roles and function of employee [X] relation of career to other careers [X] qualifications for entry [X] working conditions, rewards, benefits [X] current and projected demand [X] union or professional affiliations [X] effects of job on lifestyle [X] your own evaluation of the career [ ] b. develop career entrance skills in two of the following areas: [ ] obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements [ ] preparing letters of inquiry, applications and resumés [ ] preparing for and performing in interviews [ ] acquiring job-entry skills and career-related experience

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SOCIAL SCIENCE PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from Goal 4 or 5, or you may combine elements from each as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. SOCIAL SCIENCE INQUIRY	*At least five elements or five comparable elements*	☐ institutions ☐ social groups ☒ status ☐ socialization ☐ culture ☐ ethnic group ☐ objectivity/subjectivity ☐ perception ☐ quantitative analysis ☐ motivation ☐ cause and effect ☒ attitudes ☐ values ☒ roles ☐ needs ☒ other (specify) (1) historical events affecting ☒ women; (2) periods in the Supreme Court's orientation
5. SOCIAL SCIENCE TECHNIQUES	*At least five elements or five comparable elements*	☐ conducting survey research ☐ analyzing statistical data ☐ planning and conducting case studies ☐ observing and recording behavior ☒ making comparative analyses ☐ analyzing structure and functions ☐ designing and administering interview schedules ☐ describing and analyzing behavior ☐ contributing to group efforts ☐ resolving interpersonal conflicts ☐ displaying data with tables and graphs ☐ designing and conducting experiments ☒ researching and interpreting historical records ☐ other (specify) ______

Experience-Based Career Education	SOCIAL SCIENCE PACKAGE - POLITICS GOAL CHECKLIST *(to be used if Government credit is desired)*

STUDENT'S NAME *Craig Peterson* DATE *2/14/75*

PROJECT TITLE *The American Women's Movement: History and Current Trends*

You may select five elements from A or B or you can combine elements from each and from Social Science Goal 5 as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
A. AMERICAN GOVERNMENT/ POLITICS	*At least five elements or five comparable elements*	☐ power relationships between government levels ☐ relationships between government agencies ☐ your rights and obligations as a citizen ☒ ways your life is affected by government actions ☐ sources of political power ☒ interest groups, political movements, and political parties ☐ ways of influencing government action ☐ values and other factors influencing political participation ☐ formal and informal rules of U.S. politics ☒ major trends in the political environment ☐ other (specify) ______
B. POLITICAL INQUIRY	*At least five elements or five comparable elements*	☐ power ☒ law ☐ authority ☐ public opinion ☐ political participation or behavior ☐ freedom ☐ political socialization ☐ political institutions ☐ democracy ☐ political recruitment ☒ equality ☐ other (specify) ______

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Sample Project 3

The Impact of Revenue Sharing on Local Government

The relationships between local, state, and federal governments are confusing and often ill-defined. An investigation of the impact of revenue sharing on state, county, and city governments offers an excellent focus for expanding your knowledge of the functions and relationships of governmental bodies at various levels.

- Interview city, county, and state officials to learn more about revenue sharing and how it works, what effect it has had on local politics and governmental services, and how decisions are made about where these federal funds are spent.
- Research the history and the effects of revenue sharing by searching current and back issues of Newsweek, Time, U.S. News and World Report, and other periodicals dealing with political and economic policies and controversies.
- Write or interview state and federal legislators or their aides to determine their views on the desirability and effectiveness of revenue sharing.

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect your interests and available resources, or write new ones to guide and document your activities.

Experience-Based Career Education

PROJECT SKETCH

Use this form to plan your resource orientations. Obtain your Learning Coordinator's approval before visiting a resource.

STUDENT Ruth Howe LC Jim Connors DATE 3/4/75

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

revenue sharing

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. What is revenue sharing?
2. Who benefits most from revenue sharing?
3. Where did the design for revenue sharing come from?
4. How does revenue sharing affect local political power?
5. Does revenue sharing have an impact on local elections?
6.
7.
8.

III. WHAT RESOURCES WILL YOU USE?

[✓ RP]/RO/CR *(Circle one)* Tom Kent Phone 748-5236
Address Office of County Supervisor Jim Keyes, 1221 Pine Street

RP/RO/[✓ CR] *(Circle one)* Municipal Public Library Phone 732-1222
Address 1512 8th Street

RP/RO/CR *(Circle one)* Phone
Address

OTHER RESOURCES *(Give name of person or title and author of books, articles, etc.)*

I HAVE READ THE RESOURCE GUIDE(S) [X] Yes [ ] No (If not, give reasons)

APPROVED BY LC Jim Connors DATE 3/5/75

LC FOLLOW-UP	[X] The student has decided to do a project in this interest area. [ ] The student has decided not to pursue this interest further because:

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

Distribution: Original (White) - LC; Yellow - Student; Pink - Resource Analyst

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Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT Ruth Howe PROJECT NO. 3 PACKAGE Social Science

LC APPROVAL Jim Connors DATE 3/20/75 DATE PROJECT STARTED 3/4/75

TECHNICAL ADVISOR(S) (If any)

I. PROJECT DESCRIPTION

A. Title Revenue Sharing

PLANNED CREDITS

Subject Area(s)		EBCE Credits
1.	American Government	5
2.		
3.		

B. Theme (Please give a brief description of your project) I will investigate the impact of revenue sharing on the services provided by local government and the power of elected or appointed officials over revenue sharing funds. I will attempt to find out whether and how revenue sharing affects local politics.

C. Questions to be Investigated:

1. How does revenue sharing work? What is revenue sharing money intended for? How is it used?
2. Are some types of communities benefiting from it more than others?
3. Has the city's share of federal funds gone up or down under the plan?
4. Who is helped by revenue sharing? Who is hurt by it? Why?
5. Can the law on revenue sharing be challenged or changed? How?
6. How does revenue sharing affect the services available to an individual and the taxes he must pay? What can I as an individual do about this?
7. How does revenue sharing affect local politics and election results?

FOR LEARNING COORDINATOR USE ONLY

Mid-Term Review Initials Date	End-of-Term Review Initials Date

FWL-EBCE Rev.1/76

STUDENT PROJECT PLAN	Page 2 of 4

II. IDENTIFICATION OF RPs, ROs, & CRs

A. Completed Visits (Identify resources already visited for Orientation)

Resource Name	Address	Phone	RP	RO	CR	Hours Spent
Tom Kent	Supervisor Keyes' Ofc. 1221 Pine Street	748-5236	X			10
Municipal Public Library	1512 8th Street	732-1222			X	5

B. Planned Visits (Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)

Resource Name	Address	Phone	Acty *Level			RP	RO	CR	Est. Hours
			O	E	I				
Tom Kent	Supervisor Keyes' Ofc. 1221 Pine Street	748-5236		X		X			15
George Dietrich	City Manager's Office 3816 Buchanan	748-3261		X		X			12
Martha Zeitlin	Senator Kramer's Office 131 Rockridge	626-2976	X			X			1½
Vince Pellinacci	Senator Debs' Office 5612 Pinole Avenue	621-7380	X			X			1½
Mary Eng	Rep. Fong's Office 113 Arch Street	748-9342	X			X			1½
Diane Bassett	Rep. Rios' Office 64 Greene Street	732-4281	X			X			1½

* O = Orientation; E = Exploration; I = Investigation

C. Related Reading/Research (Give Titles)

Newspapers: The Tribune, The Christian Science Monitor, The New York Times

Magazines: Time, Newsweek, U.S. News and World Report

Urban American and the Federal System and Revenue Sharing Taxes: A Survey of Public Attitudes, Advisory Commission on Intergovernmental Relations

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS (See Resource Guides. Some sites require special insurance, health certificates, etc.)

A. Prequisites

B. Materials or Equipment tape recorder

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits 48 Hrs. Product Production 15 Hrs.

B. Reading 20 Hrs. Other (specify) Hrs.

TOTAL HOURS 83

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT 5/10/75

PLANNED PROJECT COMPLETION DATE 6/15/75

FWL-EBCE Rev.1/76

STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 3 of 4

Student Ruth Howe *LC* Jim Connors *Project Title* Revenue Sharing

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOAL 1: Determine the effects revenue sharing has had on the ability of the city and county governments to provide necessary services to their citizens.					
a. Determine per capita spending of local and federal funds combined, before and after revenue sharing.	6/10	Tom Kent & George Dietrich			
b. Identify and describe the programs and services funded by the federal government that were available to local residents before revenue sharing began. Note which ones are no longer available and analyze why in a written report. Give my own evaluation of revenue sharing in terms of its expressed purposes and results.	6/10	Tom Kent & Jim Connors			
c. Graphically illustrate the amount of money the city and county received from the federal government this year through the revenue sharing program and how that money is being spent, giving percentages for each program or service.	6/10	Tom Kent & George Dietrich			
GOAL 2: Understand the political effects of revenue sharing.					
a. Determine who has authority to allocate revenue sharing funds and compare the current power of those positions with their power and authority before revenue sharing took place. Lead a discussion on this topic in the Social Science Project Seminar.	6/5	Package Coordinator			

USE AS MANY COPIES OF THIS PAGE AS ARE NECESSARY

STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 4 of 4

Student Ruth Howe LC Jim Connors Project Title Revenue Sharing

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
b. Identify three interest groups that try to influence revenue sharing spending, and analyze their methods and motives. Discuss my findings in the project seminar.	6/5	Package Coordinator			
GOAL 3: Learn how citizens can influence the local distribution of revenue sharing funds.					
a. Interview city, county, and state legislators or their aides to determine at least three actions a citizen can take to affect local decisions about how federal funds will be used. In my written report, I will evaluate these actions in terms of their probable effectiveness and the likelihood of the average citizen taking such action.	6/10	Jim Connors			
GOAL 4: Analyze the careers of administrative aides to a legislator and a civil service administrator.					
a. Discuss these two careers with my LC in terms of the skills, knowledge, and experience required; their rewards and benefits; and prospects for employment and advancement.	5/30	Jim Connors			
b. Based on my discussion with my LC and what I learned about these careers during my resource visits and research, I will write an essay explaining why I would or would not like to pursue each of them.	6/12	Jim Connors			

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Experience-Based Career Education	SOCIAL SCIENCE PACKAGE GOAL CHECKLIST

STUDENT'S NAME Ruth Howe DATE 3/20/75

PROJECT TITLE Revenue Sharing

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* ☒ reading ☒ listening ☐ observing *Communicating Information* ☒ writing ☒ speaking ☒ innovating
2. PROBLEM-SOLVING	*All elements*	☒ define the problem or issue ☒ identify sources of information ☒ use appropriate methods for gathering data ☒ organize the information obtained ☒ evalute proposed solutions
3. CAREER - DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	☒ a. investigate two careers in terms of: ☒ roles and function of employee ☒ relation of career to other careers ☒ qualifications for entry ☒ working conditions, rewards, benefits ☒ current and projected demand ☒ union or professional affiliations ☒ effects of job on lifestyle ☒ your own evaluation of the career ☐ b. develop career entrance skills in two of the following areas: ☐ obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements ☐ preparing letters of inquiry, applications and resumés ☐ preparing for and performing in interviews ☐ acquiring job-entry skills and career-related experience

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SOCIAL SCIENCE PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from Goal 4 or 5, or you may combine elements from each as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. SOCIAL SCIENCE INQUIRY	*At least five elements or five comparable elements*	☐ institutions ☐ social groups ☐ status ☐ socialization ☐ culture ☐ ethnic group ☐ objectivity/subjectivity ☐ perception ☐ quantitative analysis ☐ motivation ☐ cause and effect ☐ attitudes ☐ values ☐ roles ☐ needs ☐ other (specify) ____________________ ____________________
5. SOCIAL SCIENCE TECHNIQUES	*At least five elements or five comparable elements*	☐ conducting survey research ☐ analyzing statistical data ☐ planning and conducting case studies ☐ observing and recording behavior ☐ making comparative analyses ☐ analyzing structure and functions ☐ designing and administering interview schedules ☐ describing and analyzing behavior ☐ contributing to group efforts ☐ resolving interpersonal conflicts ☐ displaying data with tables and graphs ☐ designing and conducting experiments ☐ researching and interpreting historical records ☐ other (specify) ____________________ ____________________

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Experience-Based Career Education	SOCIAL SCIENCE PACKAGE - POLITICS GOAL CHECKLIST *(to be used if Government credit is desired)*

STUDENT'S NAME Ruth Howe DATE 3/20/75

PROJECT TITLE Revenue Sharing

You may select five elements from A or B or you can combine elements from each and from Social Science Goal 5 as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
A. AMERICAN GOVERNMENT/ POLITICS	***At least five elements or five comparable elements***	☒ power relationships between government levels ☐ relationships between government agencies ☐ your rights and obligations as a citizen ☒ ways your life is affected by government actions ☒ sources of political power ☒ interest groups, political movements, and political parties ☒ ways of influencing government action ☐ values and other factors influencing political participation ☐ formal and informal rules of U.S. politics ☐ major trends in the political environment ☒ other (specify) revenue sharing
B. POLITICAL INQUIRY	***At least five elements or five comparable elements***	☐ power ☐ law ☐ authority ☐ public opinion ☐ political participation or behavior ☐ freedom ☐ political socialization ☐ political institutions ☐ democracy ☐ political recruitment ☐ equality ☐ other (specify)

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Sample Project 4
Psychology and Teaching

The purpose of this project is to acquire some teaching skills, learn to use some of the methods of social science research, and explore the careers of teacher and school psychologist.

- Visit some elementary school classrooms. Observe what the teachers do and how the students respond.
- With the help of a teacher, plan some lessons and try out several approaches to teaching, such as lecturing, questioning, and leading planned activities. Practice these skills by teaching short lessons in the classroom.
- With the help of the school psychologist, plan and conduct an experiment to evaluate the effectiveness of different teaching methods.
- Use what you learn from your experience with different methods and from your experiment to decide what skills or behaviors you think are important in teaching.

If you are interested in this project or one like it, review the sample Project Sketch, Student Project Plan, and Goal Checklist which follow. Use them as they are written, revise them to reflect your interests and available resources, or write new ones to guide and document your activities.

Experience-Based Career Education

PROJECT SKETCH

Use this form to plan your resource Orientations. Obtain your Learning Coordinator's approval before visiting a resource.

STUDENT George Perth LC Mary Owens DATE 10/8/75

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

teaching

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. What does a coordinator of early childhood education do?
2. What training and experience do you have?
3. Can I visit some classes at your school to find out if I like teaching?
4.
5.
6.
7.
8.

III. WHAT RESOURCES WILL YOU USE?

[✓ RP]/RO/CR *(Circle one)* Jeanne Hayashi Phone 834-1492
Address Irving Elementary School, 4062 Walton Street

RP/RO/CR *(Circle one)* Phone
Address

RP/RO/CR *(Circle one)* Phone
Address

OTHER RESOURCES *(Give name of person or title and author of books, articles, etc.)*

I HAVE READ THE RESOURCE GUIDE(S) [X]Yes [ ]No (If not, give reasons)

APPROVED BY LC Mary Owens DATE 10-8-75

LC FOLLOW-UP	[X] The student has decided to do a project in this interest area. [ ] The student has decided not to pursue this interest further because:

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

Distribution: Original (White) - LC; Yellow - Student; Pink - Resource Analyst

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Experience-Based Career Education

PROJECT SKETCH

Use this form to plan your resource Orientations. Obtain your Learning Coordinator's approval before visiting a resource.

STUDENT George Perth LC Mary Owens DATE 10/13/75

I. AREA OF INTEREST *(List the specific career, subject, or issue area you want to explore as a possible project)*

teaching

II. WHAT QUESTIONS DO YOU WANT TO INVESTIGATE TO LEARN MORE ABOUT THIS AREA OF INTEREST?

1. What's it like to be a teacher?
2. What's the best way to teach something?
3. How do you deal with behavior problems?
4. What are some methods of teaching you use?
5. Can I teach a class?
6. What does a school psychologist do?
7. What do you do about kids that don't like school?
8. How are test scores used?

III. WHAT RESOURCES WILL YOU USE?

[✓ RP]/RO/CR *(Circle one)* Sharon McNally, teacher Phone 834-1492
Address Irving Elementary School, 4062 Walton Street

[✓ RP]/RO/CR *(Circle one)* Jackie Grindler, school psychologist Phone 834-1492
Address Irving Elementary School, 4062 Walton Street

RP/RO/CR *(Circle one)* Phone
Address

OTHER RESOURCES *(Give name of person or title and author of books, articles, etc.)*

I HAVE READ THE RESOURCE GUIDE(S) [ ]Yes [X]No (If not, give reasons)
I have read the Resource Person Guide for Jeanne Hayashi at Irving Elementary School. I plan to recruit Sharon McNally and Jackie Grindler as resources.

APPROVED BY LC Mary Owens DATE 10-13-75

LC FOLLOW-UP
[X] The student has decided to do a project in this interest area.
[ ] The student has decided not to pursue this interest further because:

TAKE YOUR COPY OF THIS SKETCH WITH YOU TO GUIDE YOUR ORIENTATION ACTIVITIES WHEN VISITING RESOURCES.

Distribution: Original (White) - LC; Yellow - Student; Pink - Resource Analyst

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Experience-Based Career Education

STUDENT PROJECT PLAN

STUDENT George Perth PROJECT NO. 4 PACKAGE Social Science

LC APPROVAL Mary Owens DATE 11-3-75 DATE PROJECT STARTED 10/8/75

TECHNICAL ADVISOR(S) *(If any)* __________

I. PROJECT DESCRIPTION

A. *Title* Psychology and Teaching

PLANNED CREDITS

			EBCE Credits
Subject Area(s)	1.	Elective (Psychology)	5
	2.		
	3.		

B. Theme (Please give a brief description of your project) I plan to learn how people learn, to acquire and evaluate some teaching skills, and to use what I learn (from my experiments and experience) to decide whether I want to be a teacher. I also want to explore the career of school psychologist.

C. Questions to be Investigated:

What kinds of things affect whether and how well students learn? What makes a good teacher? How do you help kids who are turned off? Do some kids learn better from some methods of teaching than others? What methods work best for me? What's important in teaching? How can you find out whether the method you used was successful?

FOR LEARNING COORDINATOR USE ONLY

Mid-Term Review ________ Initials Date	End-of-Term Review ________ Initials Date

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STUDENT PROJECT PLAN

Page 2 of 4

II. IDENTIFICATION OF RPs, ROs, & CRs

A. Completed Visits (Identify resources already visited for Orientation)

Resource Name	Address	Phone	RP	RO	CR	Hours Spent
Jeanne Hayashi Coordinator	Irving Elem. School 4062 Walton Street	834-1492	X			2
Sharon McNally Teacher	Irving Elem. School 4062 Walton Street	834-1492	X			3
Jackie Grindler Psychologist	Irving Elem. School 4062 Walton Street	834-1492	X			4

B. Planned Visits (Identify the resources you PLAN to work with. Repeat names from above if you plan additional visits. Your project MUST include an Exploration with at least one RP or RO.)

Resource Name	Address	Phone	Acty *Level			RP	RO	CR	Est. Hours
			O	E	I				
Sharon McNally	Irving Elem. School 4062 Walton Street	834-1492			X	X			35
Jackie Grindler	Irving Elem. School 4062 Walton Street	834-1492		X		X			10

* O = Orientation; E = Exploration; I = Investigation

C. Related Reading/Research (Give Titles) Teaching As a Subversive Activity, Postman and Weingartner; Educational Psychology, N.L. Gage and D.C. Berliner; programmed statistics text

III. SPECIAL REQUIREMENTS OR PREREQUISITES NECESSARY FOR SITE VISITS (See Resource Guides. Some sites require special insurance, health certificates, etc.)

A. Prequisites ____________

B. Materials or Equipment ____________

IV. ESTIMATED TIME REQUIRED FOR THE FOLLOWING ACTIVITIES

A. Site Visits 54 Hrs. Product Production 20 Hrs.

B. Reading 20 Hrs. Other (specify) ____ Hrs.

TOTAL HOURS 94

LAST DATE FOR COMMITMENT TO COMPLETE PROJECT 12/10/75

PLANNED PROJECT COMPLETION DATE 1/30/76

FWL-EBCE Rev.1/76

STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 3 of 4

Student George Perth LC Mary Owens Project Title Psychology and Teaching

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
GOALS: 1. Understand variables that affect learning. 2. Analyze different teaching methods. 3. Learn to plan, conduct, and evaluate a class. 4. Understand and be able to use effective teaching skills. 5. Evaluate teaching and school psychology as possible careers for me.					
INDICATORS:					
a. Develop a list of things to look for; observe three different teachers conducting classes; write up my observations; compare teaching styles observed; and identify environmental factors that seem to affect student interest or attention (such as noise, light, time of day, teaching methods used, etc.). (Goals 1 and 2)	11/21	Sharon McNally & Mary Owens			
b. Develop lesson plans (including goals, objectives, teaching strategy, and materials) and conduct three 6th-grade class sessions using different methods (lecture, questioning, and planned activities for group participation). (Goals 3 and 4)	12/15	Sharon McNally			

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STUDENT PROJECT PLAN - GOALS, INDICATORS, AND EVALUATION
(See instructions on reverse side)

Page 4 of 4

Student George Perth **LC** Mary Owens **Project Title** Psychology and Teaching

Goals and Indicators	For Indicators		For Evaluator's Use		
	Due Date	Evaluator	Date	Initials & Rating	Comments
c. Plan ways to measure the results of the three methods (through interviews, observations, and questionnaires), including what students liked best, what they learned, and whether they wanted to learn it. (Goal 3)	12/10	Jackie Grindler & Mary Owens			
d. Collect information at the end of each class, summarize the data in tables and graphs, and write up my analysis of the data and the teaching methods. (Goal 3)	1/7	Jackie Grindler & Mary Owens			
e. Select the teaching method I prefer and plan and conduct three more class sessions (with feedback from Miss McNally) to improve my teaching skills. (Goal 4)	1/20	Sharon McNally			
f. Summarize in the project seminar what I have learned about teaching and learning, including what factors affect learning (physical surroundings; teaching methods; and students' motivation, attitudes, and individual needs). (Goals 1 and 2)	1/24	Package Coordinator			
g. Complete Career Orientation Guides for the careers of teacher and school psychologist. (Goal 5)	1/30	Mary Owens			

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Experience-Based Career Education

SOCIAL SCIENCE PACKAGE GOAL CHECKLIST

STUDENT'S NAME George Perth DATE 11/3/75

PROJECT TITLE Psychology and Teaching

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
1. BASIC SKILLS	*One element from each group*	*Acquiring Information* ☒ reading ☒ listening ☒ observing *Communicating Information* ☒ writing ☒ speaking ☐ innovating
2. PROBLEM-SOLVING	*All elements*	☒ define the problem or issue ☒ identify sources of information ☒ use appropriate methods for gathering data ☒ organize the information obtained ☒ evalute proposed solutions
3. CAREER DEVELOPMENT	*Choose all of a* *OR* *two elements from b*	☒ a. investigate two careers in terms of: ☒ roles and function of employee ☒ relation of career to other careers ☒ qualifications for entry ☒ working conditions, rewards, benefits ☒ current and projected demand ☒ union or professional affiliations ☒ effects of job on lifestyle ☒ your own evaluation of the career ☐ b. develop career entrance skills in two of the following areas: ☐ obtaining and evaluating information about current job openings, training or educational opportunities, and entry requirements ☐ preparing letters of inquiry, applications and resumés ☐ preparing for and performing in interviews ☐ acquiring job-entry skills and career-related experience

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SOCIAL SCIENCE PACKAGE GOAL CHECKLIST (Continued)

You may select five elements from Goal 4 or 5, or you may combine elements from each as long as you select five altogether.

GOAL	GOAL REQUIREMENTS	
	REQUIRED	ELEMENT OR TECHNIQUE
4. SOCIAL SCIENCE INQUIRY	*At least five elements or five comparable elements*	☐ institutions ☐ social groups ☐ status ☐ socialization ☐ culture ☐ ethnic group ☐ objectivity/subjectivity ☐ perception ☐ quantitative analysis ☒ motivation ☐ cause and effect ☐ attitudes ☐ values ☐ roles ☒ needs ☐ other (specify) ________
5. SOCIAL SCIENCE TECHNIQUES	*At least five elements or five comparable elements*	☐ conducting survey research ☐ analyzing statistical data ☐ planning and conducting case studies ☒ observing and recording behavior ☒ making comparative analyses ☐ analyzing structure and functions ☐ designing and administering interview, schedules ☐ describing and analyzing behavior ☐ contributing to group efforts ☐ resolving interpersonal conflicts ☒ displaying data with tables and graphs ☐ designing and conducting experiments ☐ researching and interpreting historical records ☒ other (specify) developing teaching skills

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Resources

Resource Persons
(Effective August 1975)

Herb Anderson	Personnel Analyst for the county. Discuss how to prepare for job interviews; careers in personnel management, office management, and personnel analysis; and civil service employment opportunities. (Orientations only)
Diane Bassett	Administrative Assistant in Congressman Mark Rios' office. Learn how to handle constituent requests and complaints, write letters and press releases; keep informed about local issues.
Janice Bender	Staff organizer and grievance officer for Local 51 of the American Teachers' Federation (ATF). Learn how to organize teachers and instructional assistants for union membership; poll and present issues to the School Board; do general office work; and attend parent and community group meetings.
John Bernard	Project Evaluator for Model Cities Programs. Accompany John on evaluation visits; attend Citizens' Participation Board Meetings; or discuss the politics of Model Cities, its funding, and the issues surrounding it.
Clayton Brown	Former member of the City Council and a practicing lawyer. Discuss City Council meetings, actions taken, and the practice of law.
Ronald Chang	Director of the Neighborhood Switchboard, a community information referral service. Learn about people, community problems, street politics, and coping with bureaucracies. Participate in their communications training sessions and learn how to answer calls.
Hayden Cohen	Executive Director of the American Association of Architects (AAA). Discuss AAA's purpose and function and the political impact of the AAA on local issues. Learn about careers available in management.
Jim Collier	Managing Editor of The Daily Barb. Learn how to produce a newspaper and develop interview, writing, and organizational skills. Learn one paper's style of journalism.
Cecilia DeLaTorre	A lawyer with the Legal Aid Society. Learn about poverty law and how to organize and present legal arguments. Learn to conduct basic intake interviews, answer phones, and do research; observe court cases.

George Dietrich	Staff Assistant and Hearing Officer on the City Manager's staff. Attend City Council meetings; visit many of the different city government departments; learn how to handle citizens' requests and complaints and do research; and accompany George to work sessions and meetings.
Kathy Dudley	Writer/Editor for Out Front Press. Learn research, interviewing, photography, writing, editing, and layout skills. Discuss the publishing business and its relation to current social and political issues.
John Emerson	Political campaign manager and organizer. Discuss politics and campaigning techniques. If he manages a campaign, assist him on its organization and presentation from beginning to end to learn how to organize and carry out a political campaign.
Mary Eng	An administrative aide in the office of U.S. Representative John Fong. Learn how to handle telephone inquiries, constituent problems, routine office tasks, and, if a campaign is in progress, activities related to it (distributing leaflets, canvassing the community, and so forth).
Louis Freeman	Assistant Manager of the Business Office of the Municipal Utilities District (MUD). Acquire standard office skills (mail sorting and routing, use of business machines, telephone contact), and discuss the organization and purpose of MUD.
Helen Graves	News Director at the KJOY News Bureau. Learn how to report and write news stories; "dig up" newsworthy events; cover "leads"; and learn the difference between writing for radio and for a newspaper.
Jack Grossman	Volunteer at the Bird Protection Society. Discuss careers in the field of environment and ecology. Research environmental/sociological issues for publication in the Bird Newsletter.
Ella Harris	Vice President of the Clay Book Company, as well as a cataloger and bibliographer of antiquarian books. Her hobby is state history. Learn and use cataloging, bibliographic, and antiquarian skills; discuss your writing skills and get help with them; discuss and plan a history project with her; or use the bookstore as a research resource.
Jeanne Hayashi	Teacher and Coordinator of the Early Childhood Education Program at Irving Elementary School. Learn how to work with students in a wide range of classes from art to poetry to science.

Bob Jefferson	Disc jockey at radio station KOOL. Explore the career of broadcaster from script writing to performing. Report on events concerning high school students or acquire an FCC third-class broadcasting license.
Tom Kent	Administrative Aide in the office of County Supervisor Jim Keyes. Discuss politics, political careers, and current issues. Attend meetings, learn how to solve daily problems, serve as a "Person Friday," research issues, and help organize community activities and events.
Sam Koenigsberg	Attorney for City Legal Assistance. Learn about poverty law and how to organize and present legal arguments. Learn how to conduct basic intake interviews, answer phones, and do research; observe court cases.
Ann Lancaster	Executive Director of the Bay Region Marine Exchange. Learn how to monitor ship traffic; assist in dispatching of pilots, radio-telephone traffic, record keeping, telephone answering services, and information relay; research world trade issues and procedures, national economic issues and problems, international economics, and federal control of imports and exports; and investigate management careers.
Sylvia Lee	Staff member of the World Peace Council. Discuss such issues as: amnesty for military deserters and draft evaders, current peace movements, international relations, and prisoners of war. Work on the Council's research and periodical files or do research.
Harold Long	Battalion Chief with the Fire Department. Discuss and research the politics of fire fighting: budgets, station locations, and public attitudes. Tour the various sections within the Fire Department and observe and discuss equipment and procedures.
Jim Martinez	Attorney and Owner, Editor, and Publisher of The Daily Gazette, the official legal newspaper for the county. Learn how to proofread. Discuss the history of law, the function of a legal newspaper, and careers in law and publishing.
Ken Masuda	Counselor with the Employment Service, a division of the State Department of Human Resources Development. Develop and use individual and group employment counseling techniques. Learn about vocational tests, categories, and matching individuals to careers according to interests and abilities.

Peter Nielsen	Head of the County Department of Weights and Measures. Tour the Department and discuss equipment, procedures, and careers.
Tony Pappas	District Administrator for the State Department of Rehabilitation. He counsels the physically and mentally disabled and helps them adapt to new, productive roles. Discuss the counseling and rehabilitation professions and office procedures. (Orientations only)
Vince Pellinacci	Administrative Aide to Senator Mary Debs. Learn how to file, answer phones, type, and do other routine office work. Discuss and possibly assist with public relations, research and "trouble-shooting" tasks.
Bill Pfeiffer	Secretary to the Municipal Utilities District (MUD). Develop and apply public relations and audio-visual skills. Meet MUD's lobbyist; attend MUD's legislative committee and state policy meetings; or do research.
Dolores Prado	Coordinator of the local Migrant Workers United Organizing Committee. Discuss the history of the migrant workers' union movement, the economic and other issues involved, and this union's relation to other unions. Learn canvasing, leafleting, and research activities. Help inform the community about farm labor issues.
Betty Sands	Coordinator for Socialist Youth. Meet and talk with people in "radical" politics, learn about all phases of their activities, and find out more about the position of the "left" in American politics.
Nancy Townsend	Vice President of the Regional Coordinating Council of the Women's Rehabilitation Training Organization (WRTO), and Chairwoman of the American Education Committee. Attend policy-making and planning meetings and study groups. Observe activities involved in planning and coordinating public relations and educational activities. Help research articles on employment, occupations, and vocational education and help write abstracts and educational bulletins.
Bob Woodruff	Program Director for the county branch of the American Cancer Society. Observe office administration and fund-raising activities. Accompany Bob on field visits and contacts with people in various county communities. Learn various office activities.
Martha Zeitlin	Administrative Aide to U.S. Senator Joe Kramer. Learn about types of problems, requests, complaints, and questions the Senator's office must answer. Learn how to handle the mail; answer phones; respond to written and telephoned requests and questions; and possibly assist with emergency casework.

Resource Organizations

(Effective August 1975)

Action for Women	An organization concerned with direct action on the social and economic issues of women. Develop and use media skills and gain experience in organizing and working with groups.
City Parks and Recreation Department	Work with RPs in many of the varied departments within Parks and Recreation such as the zoo, the garden center or nursery, the park rangers, the science center, or the children's playland. Put your skills in arts, crafts, gardening, or sports to use and teach them to others. Learn about the role this department plays in local government.
City Planning Department	Meet with members of the City Planning Department to discuss careers in this field. Tour the various sections within the Department. Discuss issues related to city planning, such as zoning, urban renewal, and urban development. Research various issues and problems related to city planning.
Civil Liberties Union, City Chapter	The CLU is an organization of lawyers and interested and concerned citizens whose activities center on issues having to do with the protection of individual rights under the Constitution. Attend workshops and meetings; help resolve issues; do research; and discuss Constitutional law, history, and the legal profession.
Co-op Play Center, Inc.	A parents' cooperative day-care center. Learn how to supervise play activities; make games for the pre-kindergarten program; help with fund-raising activities; attend parent board and staff meetings; and discuss and learn child development skills.
History of Women Library	The library collects, catalogs, and microfilms information about the history and development of the women's movement, information about or by women and about issues important to women (child care, abortion, employment laws, etc.). Become involved as a volunteer collecting and preparing data on women's history for eventual microfilming and cataloging. Acquire cataloging and classifying skills. Research women's history.

Housing Authority	This agency builds, leases, and maintains low-cost housing for low-income members of the community. Work in the Management, Development, Accounting, Maintenance, or Community Services Departments to develop skills related to those departments and learn what this local governmental agency does and how it serves the community.
Own-Recognizance Project	Attend their training session to develop interview skills, learn technical words, and become prepared to work as a caseworker. Interview arrestees, research their backgrounds, write reports, and make recommendations to the court. Compile statistical data and do other research necessary to help the project obtain funds for various needed programs.
Pacific Transportation Company	Explore the complex workings of a railroad. You can begin inside at the clerical offices, then move to the freight offices, and on to the outside to meet brakemen, switchmen, engineers, and yardmasters. Observe all of the activities of the various departments. Discuss the railroad unions and their role in this organization.
Police Department	Visit and observe activities in the various departments, including Communications, Training, Records, Traffic and Patrol, Youth Services, and Public Information. Discuss careers in police service.
Sign Newspaper Group	The Sign Group is made up of six newspapers, including Ciudad, a bilingual paper. Learn and use skills in all phases of news reporting, including writing, photography, page design, drawing, and typesetting.
Women's Law Association	This organization counsels female applicants to the University Law School, recruits high school applicants, and researches legal issues of concern to women. Attend lectures and learn how to organize for national conferences, do research, and counsel women about educational opportunities.

Community Resources
(Effective August 1975)

Bay Sentinel	An "alternative" newspaper which specializes in investigative reporting of local issues.
Better Business Bureau	This agency offers a tremendous amount and variety of information and assistance on consumer education and affairs. Volunteer to work in the office; discuss consumer complaint procedures; and learn about consumer information.
Central Democratic Committee	This committee is made up of elected members who form the policy-making body of the Democratic Party. Membership is on a part-time basis. Meetings are open and vary depending on the agenda.
City Council	The council meets to discuss, debate, and pass legislation related to the management and organization of the city. It holds regular public meetings where issues of political important are discussed. Observe meetings and discussions.
City Museum	The City Museum houses exhibits on the history of the state, natural history, arts and crafts, and special exhibits. The museum has a film program every year for a small admission charge and sells books, prints, and other materials.
County Board of Supervisors	This body meets every Tuesday to discuss matters of concern to the county. Issues vary widely from meeting to meeting, but all affect the economy and government of the city and county.
Criminal Records Production System	The Criminal Records Production System (CRPS) Citizens' Advisory Committee is developing a code of ethics to guide the computer system the Police Department is developing. Work with individual committee members, attend meetings, do research, and learn how the computer system could affect you and all other members of the community.
KPAT Radio	A listener-sponsored, non-commercial radio station which is partly staffed by volunteers. The station is concerned with local community issues and politics. Volunteer to research local problems and issues.

Latino Library	A library of books, magazines, and other information directly relating to Spanish-speaking people. It also contains many books and articles in Spanish.
League of Women Voters	One of the first and oldest political organizations for women. Learn the organization's purpose and stand on various issues and problems, how such an organization fits into the American political system, and the history of the women's movement in America.
Municipal Public Library	A lending storehouse of books, magazines, records, microfilm and other materials.
National Organization for Women (NOW)	Here you can obtain up-to-date information about political, legal and social problems and issues of concern to women, and what this organization is trying to do about them.
Republican Headquarters	This organization coordinates local party activities, raises campaign funds, and provides information and materials regarding issues and party positions. Obtain information about the party structure, operations, and policies.
Service Corps of Retired Executives (SCORE)	This organization is a part of the Small Business Administration and is composed of retired executives who counsel and hold workshops for small-business owners who need assistance. Learn the principles of entrepreneurship and attend workshops.
Social Security Administration	Here you can obtain information about any aspect of social security. You can also obtain a social security card, necessary if you wish to work.
State Department of Public Health	Learn about the role of this department in maintaining the health of the community by overseeing industrial health conditions, and in setting state health standards. Tour the facilities and discuss issues and careers in the Department.
State University, Crawford Hall	Crawford Hall houses the Anthropology Department, the Museum of Anthropology, and the Ross Art Gallery.

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